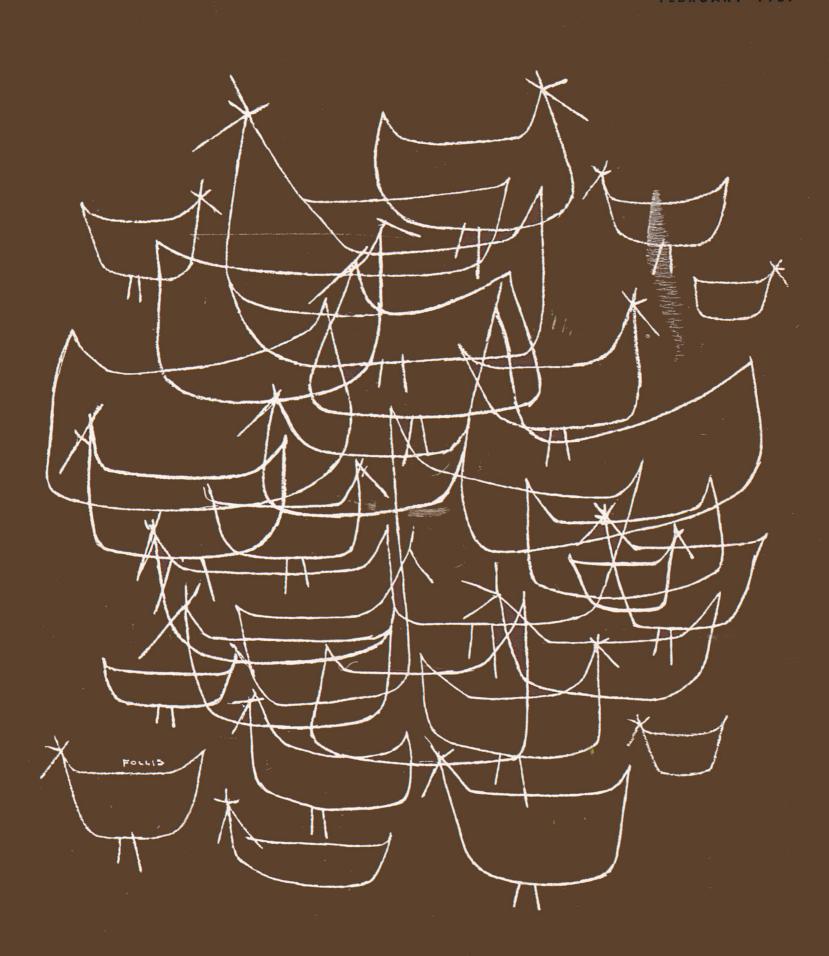
# arts sarchitectures

FEBRUARY 1957



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When Arturo Toscanini failed to waken from sleep those of us who had felt his leadership through the most difficult years of modern times had little more to say. Let the obituaries summarize the legend. We knew, from the hour when he left the podium refusing to return, that he would not come back. We could trust the emotional authority which had never deserted him as artist or as man. The "infallible conductor," the "prodigious memory," the faithfulness to the score meant little to us. The unequalled musical technician never let us down. It was not for that we loved him but for our knowledge that when a particular emotion exalted him he could draw from the welltrained orchestra a response unique to the occasion; for his unfailing, detailed, determined craftsmanship, the discipline imparted during his first seasons with the New York Philharmonic-Symphony by three years of unremitting rehearsal to achieve a Jupiter Symphony; for the years of miraculous workmanship with that orchestra until the heartbreaking mastery of the Ninth Symphony with which he bade his orchestra and his devoted millions of radio listeners farewell. More than any other man Toscanini symbolized good music, music as an art to be respected, not to be laughed at, among the countryclubbers, the bridge-players, the homebodies, the younger generation awakening through the rough years of Depression to the necessity of music. Through the radio he, more than any other, built the American awareness of serious music as a necessity of life. When he returned to lead a new orchestra, it was not quite the same; but he spoke for us, as no other could do it, of the long agony of Europe in an unforgettable reading of Beethoven's Solemn Mass and again,

after the signing of the peace treaty with Japan, when the radio turned from that ceremony to hear him lead his orchestra in the Eroica Symphony. At the end he left us his greatest works, above all his unequalled Ninth Symphony, his beloved Verdi, in records defined not by perfection or by peculiarity but by his unexampled emotional authority, transmuted as whole forms, his own. For much music he was not the best conductor; we did not expect that he should be. What he did best is imperishable in our memory. His few notable actions outside music were as worthy: he turned his back on the Nazis; he defied Mussolini in Italy. Through his long life he never abandoned the composers or the works he loved or those works which spoke for him of Italy. His greatest achievement was the wakening of America to music. Let it be remembered that he, longer than any other, made music in America, not accepting the standards of our popular culture but imposing on us his standards; and we loved him for leading us. He stood upon the height of orchestral and operatic music, arriving not too early and leaving not too late.

### A COLLECTION OF REVIEWS

Here for a change is a collection of reviews, a cross-section of the concerts and recitals I attended early in the season.

At the Hollywood Los Feliz Jewish Community Centre the current season opened with a recital by George Neikrug, cellist, accompanied by Florence Merkin. Mr. Neikrug offered material enough to make a program and a half, opening with a Sonata by Locatelli to show off the instrument and Three Fantasy Pieces by Schumann to settle the audience in its seats. The bare and acoustically unadorned hall was packed, the audience revealing its musical inexperience by loudly applauding the first piece after every movement. I enjoy an inexperienced audience. It demands as much

(Continued on Page 6)



# 

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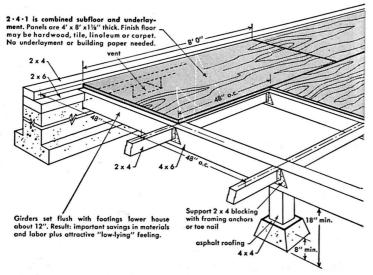
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### MUSIC

(Continued from Page 4)

of the performer as an experienced audience and may be less tepid; it is the more responsive, if he knows his business. And there is usually a sufficient component of good listeners to assert leadership when the player raises the level of the proceedings.

Mr. Neikrug did raise the level with the third number, the Concerto by Samuel Barber, a big, bold composition that starts well in each of the three movements and each time runs down for lack of direction. Barber begins in medias res with what appears to be the development of his first subject, leaving nowhere to go when the proper time for a development arrives. Being unwilling to end the movement so soon after its beginning he resumes with a scholastically melodious second subject, a type of material that is good for contrast but incapable of carrying the real weight of all that must somehow follow after. What began as drama subsides to charm and then to labor. The second movement undoes itself by dwindling to a kind of sicilienne. From these two changes of direction the third movement does not recover. Borrowings of Bloch and Bartok only emphasize Mr. Barber's unwillingness or incapacity to go the whole way with his mentors. For all that, the Concerto will sustain a good few performances before wearing thin. The Concerto was played all out, deserving the applause it was given.

Instead of relaxing after what might have been the big work of the evening Mr. Neikrug returned to perform the Sixth Suite in D for solo cello by Bach. I had heard him play the Suite before but not so capably as on this occasion. The cello suites are the nearest any composer has come to pure instrumental speech devoid of extraneous emotional suggestion. In the playing I might cavil at some failures in the niceties of embellishment, but as a whole I was thoroughly persuaded. Mr. Neikrug subordinates notes to phrases and dovetails the phrases with a feeling of long line and rhythmic relief. Only in this way can the feeling of polyphony be obtained from this music, which is essentially non-polyphonic. He derives tone from the compression of the line, instead of altering or attenuating the design, as is often done, to suit the competence of his instrument. The audience, at its several levels of capacity, was as pleased as I was.

Having now offered more than a full recital he closed the evening with small pieces by Schubert, Ravel, and Popper, each fresh in my experience, plus a pair of encores which I wish he had left at home. Apart from these, I could not ask for a less hackneyed selection from the all too limited repertoire for cello.

At Hancock Auditorium of the University of Southern California the annual Koldofsky Memorial Scholarship Concert was played by Eva Heinitz and Alice Ehlers. Miss Heinitz is an accomplished performer on viola da gamba, using the correct style of bowing, as for string bass, which throws the arm out from the body in a very graceful gesture. She does not tie gut frets on her gamba, a correct practice I have yet to see or hear. I wonder why gambists hesitate to go all the way with their instrument.

The program included three works by the French composer Marin Marais (1656-1728), one of the principal composers for the gamba: a Suite in A minor, Couplets des Folies d'Espagne, another of the hundred or more sets of variations by many composers on this unfailingly attractive melody, and a Tombeau for M. Lully. The Suite has all the charm of its period, comparing very favorably with the Pieces en Concert by Francois Couperin which closed the recital. The Couplets are as refreshing as the more familiar variations by Corelli, so often abused by violinists. The Tombeau, a type of free lament popular at that period, lasted slightly longer than my attention, which may or may not have been the fault of the playing. This is a style of writing, recently revived by Hindemith in his Funeral Music for King George V and by Stravinsky with his Elegy for Connou, both composed for solo viola. This style of free elegy deserves more use

The two performers wallowed, I use the word sadly, through the Sonata in D major by Bach. Miss Heinitz alone made an interesting display of the Adagio ed Allegro in D minor for solo viola da gamba by Carl Friedrich Abel, and Mme Ehlers set forth Bach's Chromatic Fantasy and Fugue in her customary authoritarian manner. An overflow audience kept me sitting on the floor in an anteroom until intermission, proving again that Mme Ehlers conveys to many, if not

always to me, the pleasures of the harpsichord.

The second of the Monday Evening Concerts consisted of Summer Music, opus 31, for wind quintet, by Samuel Barber, and Youth, for wind sextet, by Leos Janacek, played by the Bovard Ensemble, Roger Stevens, flute, Burt Gassman, oboe, Kalman Bloch, clarinet, Merritt Buxbaum, bass clarinet, Norman Herzberg, bassoon, and Sinclair Lott, horn. Between these two pieces Eudice Shapiro, a violinist I have often praised, and Andre Previn played Beethoven's Kreutzer Sonata and the Sonata for violin and piano by Ravel.

Eudice Shapiro needs a strong pianist to support her powerful and incisive playing. Given such a pianist she is capable of responding with a true classic obbligato in the manner not favored by the general run of concert violinists, who wobble between the illusions that the piano in a Beethoven sonata should be heard only as an accompanying instrument and that it should be heard scarcely at all. When Miss Shapiro is not properly supported, or led, by the pianists, she feels the need of carrying the burden of the sonata by herself. If the pianist is a good accompanist, this can be done. With a pianist who wishes to assume his share of the responsibility but is not capable of doing so, the result is often lamentable and at best laborious. Last year and this Miss Shapiro was chosen to perform major classic sonatas without adequate support. Mr. Previn, who makes a career in jazz and motion picture studio conducting, is the sort of pianist who gets over the keys at the expense of sound and phrase. In the Kreutzer Sonata he was unable to distinguish between piano and forte, the least that must be expected of anyone who attempts playing Beethoven. His trills burbled and fluttered; the piano solo at the beginning of the second movement lacked grasp. In the Ravel Sonata, a work not unattractively reminiscent of Gershwin but more polite and better put together, several interesting jazz effects were worked out, to the pleasure of the audience, with an unfortunate disregard for the confusion caused by them in the organization of the movements.

Samuel Barber has a natural affinity for string instruments. His Summer Music appears to have been composed with strings in the head, though scored for winds. Janacek's Youth, composed I belive for a celebration of his seventy-fifth birthday, is a different matter. Every part is designed for the instrument that plays it; the parts combine in great variety without losing instrumental distinction. Light and almost playful in intent, the work gains force by an unfailing musicianship, that choice of the right note or the right phrase that holds the ear rather than the mind. The performances in each case were all the music allowed.

At the fourth of the Monday Evening Concerts the American Chamber Players offered a Piano Trio in E major by Haydn, the Quartet for Piano and Strings composed in 1950 by Aaron Copland, and the Piano Quartet in C minor by Brahms. Dorothy Wade, violinist, William van den Burg, cellist, and Ingolf Dahl at the piano made up the trio, joined by Milton Thomas, violist, for the quartets. The Haydn Trio is one of several in which Mr. Dahl has slightly rearranged the parts, borrowing from the piano to amplify the cello. Mr. Dahl's awareness of harpsichord style was evident in his reading of the piano part, rather dry but free of pianistic romanticism. I am not sure that in trying to recapture the style he has not taken a wrong direction. The Trio is not a harpsichord piece, nor does it welcome the white sound of the heavily strung modern piano. The tone requires the utmost richness and a minimum of percussion, soft, clear, not light yet not hard struck. To hear the orchestral amplitude of Haydn's keyboard writing, you should play the early keyboard sonatas on the clavichord for which they were written. The higher overtones, simulating winds and brasses, bridge the audible gap between Haydn's keyboard and his orchestral writing. But this trio is not for clavichord either, and a Stein piano or one of its modern counterparts is not to be borrowed in Los Angeles.

(There is or was in Los Angeles an authentic, handsome Stein piano. It was stored in the basement of the County Museum, on loan but not displayed, it strings in a tangle. The owner picked up small fees by renting it to motion picture studios to play the part, visibly, of a harpsichord. It should have been bought, repaired, correctly restrung, exhibited and used for playing Haydn and Mozart in the Museum chamber music concerts. Such an instrument would be a more worthy and valuable exhibit than a number of the tawdrier

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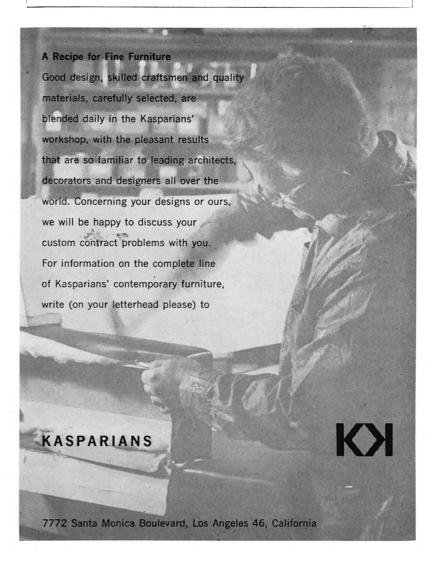
### **An Announcement:**

"Design in Scandinavia"

An important exhibition of objects for the home from Denmark, Finland, Norway, and Sweden will open at the Los Angeles County Museum on February 19th and will continue until March 20th. The show is indeed a timely one since Scandinavian design is enjoying tremendous popularity and acceptance in the United States. It is made evident not only by the large number of Scandinavian designs which are offered in the United States but also by the great influence Scandinavian designers have had on American-made furniture, tableware, fabrics, and other items for the home.

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### MUSIC

(Continued from Page 7)

items in the permanent collections).

The Trio is all good Haydn, as astonishing as are many of these trios all of them delightful, yet, because of the small part allotted to cello, seldom played. Mr. Dahl's enlargement of the cello part is unexceptionable, in no way disturbs the balance and adjusts the work more attractively for ensemble playing. He has been, if anything, overcautious. No one has explained satisfactorily Haydn's failure to write as fully for the cello in these trios as for the violin. It may be that he expected in the cellist a good continuo player's ability to supplement his part from the bass line of the piano. The continuo habit was not yet broken, not indeed until the last three trios by Mozart. There are good objections to this argument, but it suggests a method of approach. In the second movement of this Trio, a type of passacaglia, which opens with an extend piano solo, the addition of the cello playing the bass line should enrich the sound while in no way detracting from the delayed violin entrance. To start pushing around a classic is asking for trouble. Better to play it than admire it silently. If well-thought rearrangement of parts can bring these trios back into performance, let it be tried daringly and without shame.

A Stein piano would have improved the Haydn; it would have been no less welcome in the Copland Piano Quartet where much of the time the piano, despite the overlying pianistic layout of the parts, is simulating a linear instrument. I should like to hear the Quartet tried, even, with harpsichord. For keyboard music requiring higher overtones the harpsichord or the Stein piano, though ancient, would be good modern instruments. Oh, there he goes on his latest fad, someone grumbles—so no more about that.

This is Copland's third try with a tone-row. A similar eleven-note row with serial development was tried by Copland during the later twenties in an experimental Song, the text a poem by e. e. cummings. The Song was soon followed by the great Piano Variations, where among other devices, a four-note row is manipulated according to serial principles. Copland's use of the row method is less canonic and less consistent than the recent row works by Stravinsky. Like Stravinsky he retains definite, if dissonant, tonal references. The first movement of the Piano Quartet sets up the general style of a syncopated fugue with occasional somewhat arbitrary accompaniment. The second movement stretches the tempi—it must be played relatively slowly to sound fast enough—as well as the tempers of the instrumentalists. It is a display piece which interests rather than convinces. The third movement, rather dragging and remote, aims for the emotional stratosphere but soon gives up, short of breath. The descending three notes of the original row reappear in their pristine form as Three Blind Mice, followed in one exposed place by See how they run.

The preceding spurt of information about Copland and the tone row, indicates that I have been reading Aaron Copland by Julia Smith, published by E. P. Dutton. Julia Smith is fascinated by the dangling participle, which she dangles like a bangle regardless of the word it presumably, if not grammatically modifies. This is the best book yet written about Copland and makes up in information, if not in depth, what it loses in grace. Here one learns that the Three Blind Mice figure has appeared several times in Copland's theses; in bare notation it seems to have a meaning for him that he has not troubled to explain to his biographers. He deserves better biographers than he has been granted.

The final work, the Brahms C minor Piano Quartet, has been described as tragic and as a masterpiece. It aims at tragedy with a birdshot of notes which it almost tragically fails to master. The themes do not stand up or develop; the big cello solo introducing the slow movement is dry and will not sound. I don't doubt that the structure will support visual analysis. Brahms failed as often as he succeeded in chamber music. He succeeds when he emulates later Beethoven and is most sparing of notes. To this I will allow the exception of the G minor Piano Quartet.

I did not go to hear the pianist Geza Anda, presented by the Music Guild. His broadcast the previous Sunday, with the New York Philharmonic-Symphony, confirmed my earlier notion that he is a sort of boy prodigy, rather like our own Leonard Pennario, who has

(Continued on Page 28)



### in passing

There are two essential qualities of a good newspaper—freedom and responsibility.

Neither is exclusively dependent upon its Editor and controllers. Both depend also upon the acceptance by Governments and officials of all kinds, of their public obligation to make fully and freely available all the facts required for the full and impartial reporting of public affairs. And their acceptance also of the obligation to permit full and free comment on those facts.

Nor is this all. Freedom and responsibility are not qualities which grow of themselves. They require the support and stimulation of a public opinion which recognizes their value. Newspapers are as good as their readers make them. The quality of news depends as much upon those who read it as those who write it.

It is obvious that neither of these circumstances exists in all parts of the world. Over great areas newspapers are regarded as the instruments of Governments to report only what is acceptable and useful to those in power and to comment only as officialdom requires. In many other areas where the press is nominally free, the obstacles that stand in the way of full and honest reporting are formidable—obstacles in some cases of legal prohibition, in others of official attitude.

Nor is a public opinion which is ready to accept—still less to demand—honest and impartial reporting and objective comment, by any means universal even in those countries where newspapers are nominally free, and democratic institutions a part of the constitution. Where political development is in its early stages, and where education is restricted and illiteracy high, public opinion, although it may nominally embrace the need for a free press, is unlikely to be much interested in a responsible one. The price of circulation and with it of economic survival in such circumstances may be not responsibility but irresponsibility.

It is necessary to say this since it is unrealistic to write of the quality of the news without appreciating that many of the circumstances which make quality in news reporting possible are wholly or partially non-existent over large areas of the world.

The basic principles of good journalism may be universal. The factors which make possible their practical application are far from being so.

Even where such principles are theoretically accepted the means to translate them into positive terms do not exist in considerable areas of the world—a fact which those who look at the problems of journalism from levels of sophistication made possible by the existence of mature press systems need to bear in mind.

I believe a first essential to be the separation

of news from comment. It is part of the responsibility of a newspaper to comment on what is important in the news of the day: it is no less a part of its responsibility to leave the reader in no doubt as to where reporting ends and comment begins.

Stated thus baldly the issue seems clear and simple—a mere matter of restricting the reporting of events and policy developments to the news pages and the comment on them to the leader page. It is far from being so in fact.

In the first place it is impossible for any newspaper serviced by a highly developed and mature system of national and international news collection to print all the news that flows into its office from all parts of the world almost every hour of the day and night. There must be selection—especially so where newsprint is scarce and costly and newspapers are severely restricted in space. And the very fact of selection implies comment. There is no comment more absolute than the decision to exclude a piece of news as unimportant.

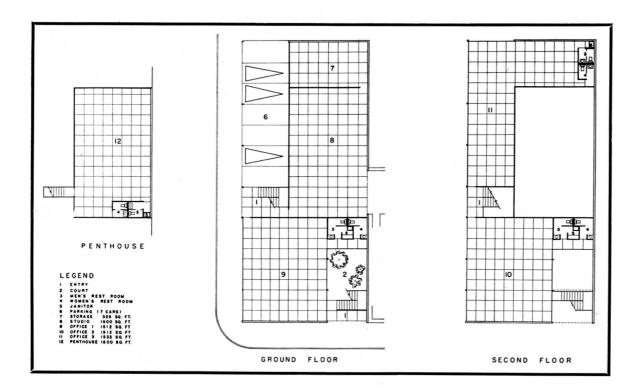
Nor does the comment implicit in the inevitable exercise of editorial judgment as to the relative importance of the news available end with the decision to print or not to print. It finds hardly less significant expression in the placing and presentation of the news selected—the decision as to whether it shall go on the front page or on an inside page, at the top of a column or at the bottom, shall have large headlines or small.

Such indirect comment is inevitable. But it has been made more emphatic with the development of modern techniques of newspaper make-up. These tend to concentrate immense resources of typographical skill on making the appearance of a page attractive even at the expense of a lack of balance in the treatment of the news itself.

The only safeguard open to the reader in such circumstances is that of a choice of newspapers. With such a choice he can at least elect to buy the newspaper whose editorial judgment of news values experience has shown to be nearest to his own or whose bias in the selection and presentation of news he is aware of and can consequently be on watch against. And if he is wise he can buy a second paper against which to check the first.

Objectivity is one of the most difficult of all virtues. In the nature of things journalists—like other men—are subjective thinkers. They are writing for readers who are also subjective thinkers. A policy decision which to the supporters of the Government making it may quite honestly appear wise and statesmanlike may no less honestly appear to its opponents as shortsighted and foolish. It is almost impossible to avoid some reflection of this in the treatment and headlining of news.

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This structure is located on a 50'x110' corner lot adjacent to a building owned by a client who desired to increase his studio facilities and to provide rental offices for related professions.

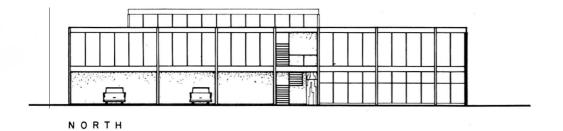
The ground floor plan provides parking for seven automobiles, photogaphy studio/storage and one rental area. The second level provides two rental areas, one of which is over the carport. The studio required a 15-foot ceiling height, thus a fourth rental area, a penthouse, has been placed above the studio.

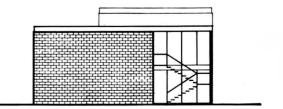
The exposed structure will be steel frame with panel walls of lightweight concrete block, pain ter, glass and porcelainized sheet metal. The building will be air conditioned and finish materials include wood paneling, 2'x2' composition tile flooring and acoustical ceilings.

### Below:

A building for an independent bank in a small beach community. The building size is 52'x132' and the structure is inverted tapered steel girders and 8WF17 steel columns at approximate 17-foot centers. The steel girders span 50 feet and lateral forces are controlled by a rigid steel frame within the structure, 30 feet from the face

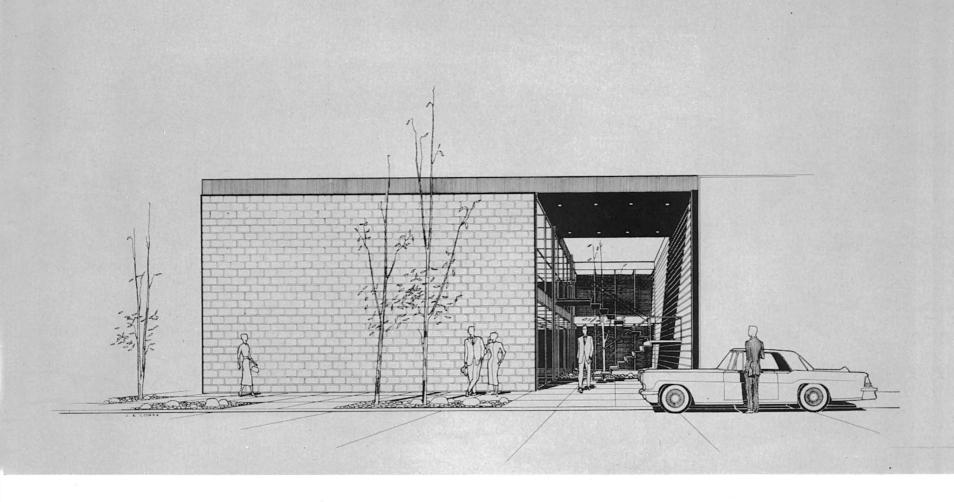
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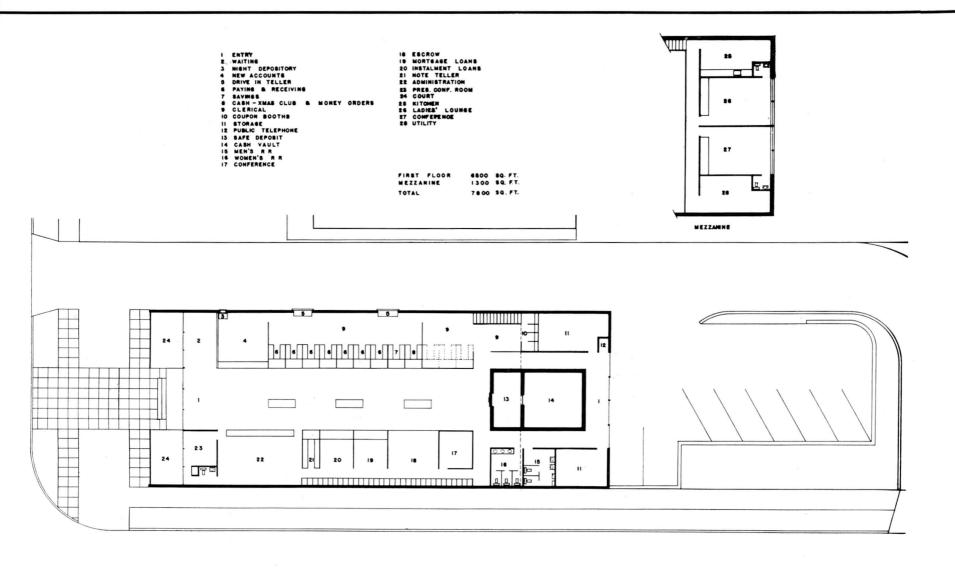


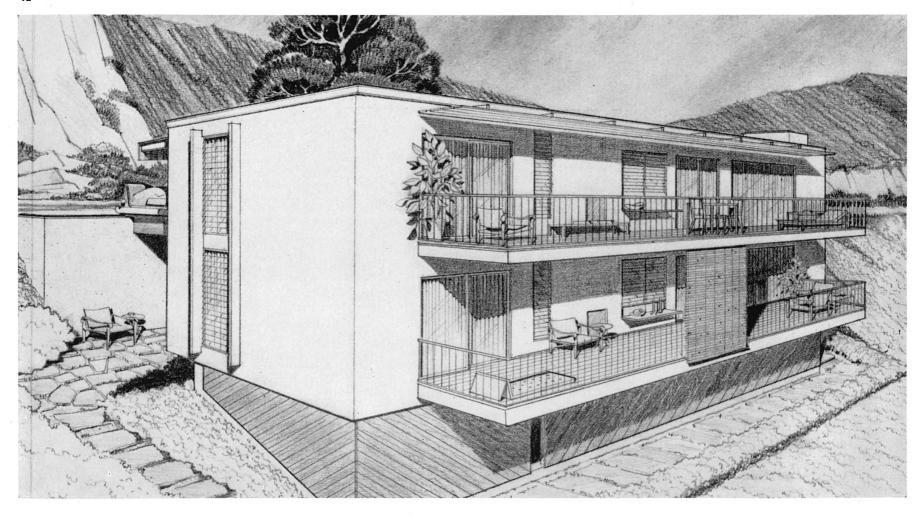
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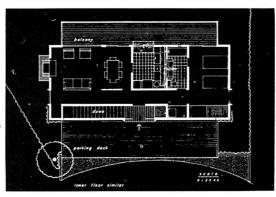
TWO COMMERCIAL BUILDINGS BY CRAIG ELLWOOD ASSOCIATES

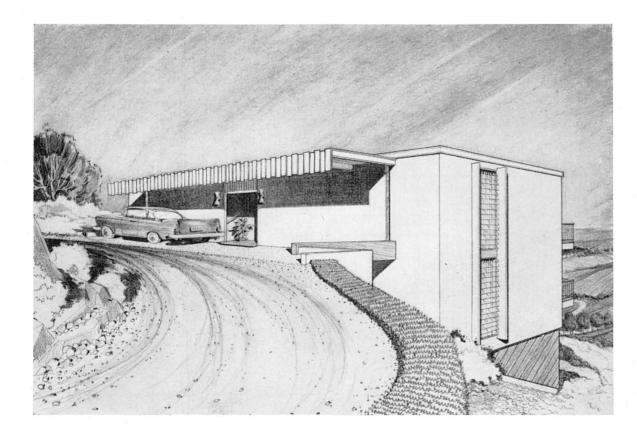




### HILLSIDE HOUSE BY JAMES DURDEN

IWATA AND JENKINS: STRUCTURAL ENGINEERS

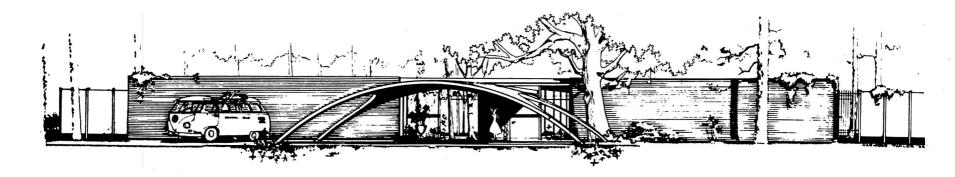




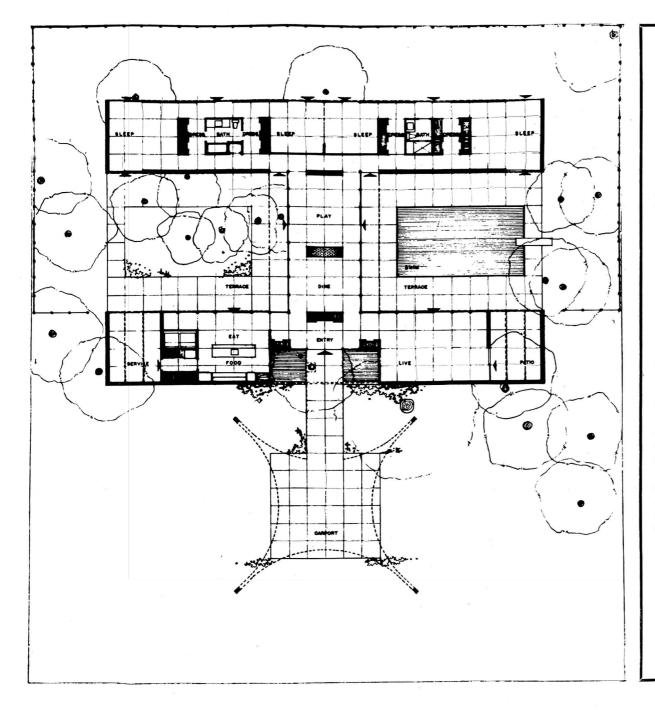
The site is a piece of land dropping sharply away from the curving road. There is a commanding view of city and ocean. By restricting parking to a sheltered deck, 10 x 40 feet, parallel to the house, it was possible to make all rooms face the best of the view without increaning the size of the foundations or the height of the subfloor. Since the grade was very steep, with considerable fill at one side, the footing wall was poured around the perimeter as a continuous concrete beam, supported by concrete caissons at the upper and lower walls. The subfloor walls were then braced by diagonal wood sheathing and the lower and upper floors were framed so that balconies and canopies could be cantilevered.

The house was planned as a single family residence with the future possibility of being converted into two separate and private units. Both floors are similar in plan: living and dining space, guest room and bath occupying the upper level; a studio and workshop, master bedroom and bath on the lower level. A sheltered space beneath the parking deck is open at both ends as a breezeway and is protected from harsh sun and strong wind, and will be used as a garden room and service area.

Sliding aluminum doors open to the balcony from the dining area and the bedroom. There was no natural gas in the immediate area. All appliances are electric. A radiant electric heating system, "Ceil-Heat," was installed in the plaster ceilings. All plumbing is along one wall, with an automatic laundry and linen storage in a closet across the hall from the bath. The place is concrete block; wood frame construction is used throughout the house. Except for exposed wood sheathing at the subfloor, all exterior walls are stucco. Interior walls and ceilings are plaster with the exception of the outside perimeter of the kitchen and bath unit which are to be paneled in wood.



### HOUSE IN TEXAS BY NEUHAUS AND TAYLOR, ARCHITECTS

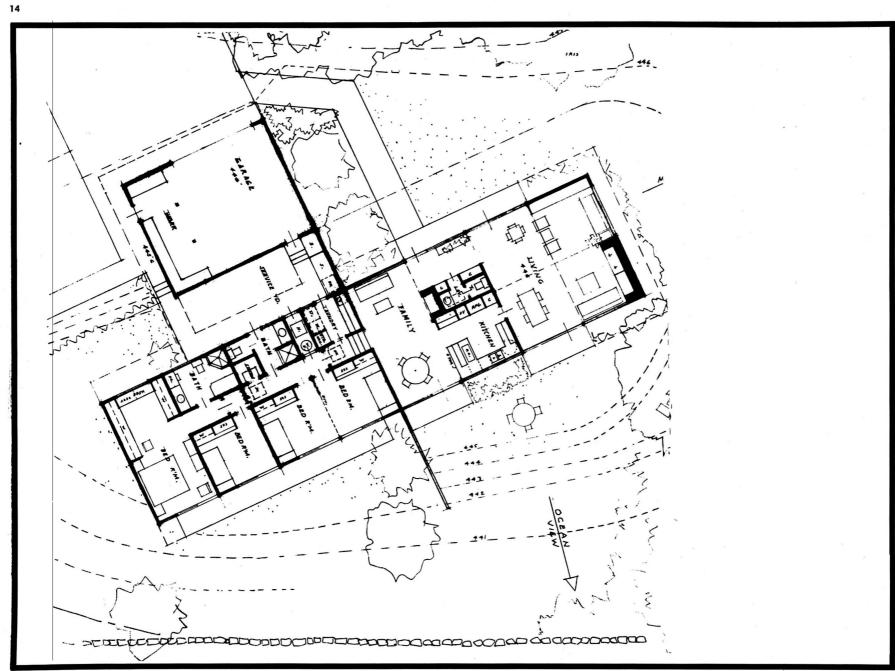


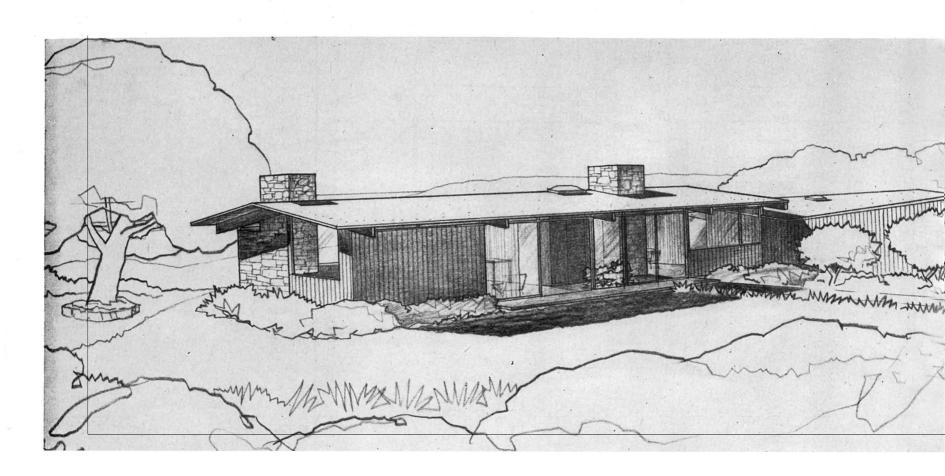
Site: 130' x 150', flat, heavily wooded. Problem: The design of a contemporary residence, for a young couple with two children, which would be suitable for entertaining with large informal parties, taking advantage of the natural beauty of the site, yet maintaining privacy from the neighbors.

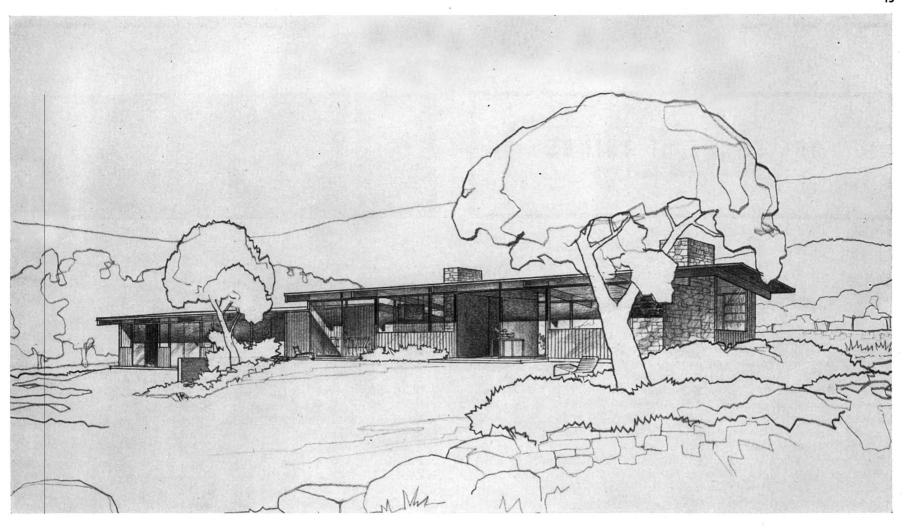
Solution: The basic house was designed around the swimming pool and play yard, on a basic  $4' \times 4'$  module expressed in the terrazzo floor used throughout.

The necessity of saving large oak and pine trees dictated the basic "H" shape of the plan. The drive-through portecochere is framed with four 36' laminated arches inclined at approximately 45° and roofed with 1" decking spanning in both directions which forms a warped shell type roof. This shape was used primarily for design relief of the severe brick exterior after determining that it was structurally and economically feasible.

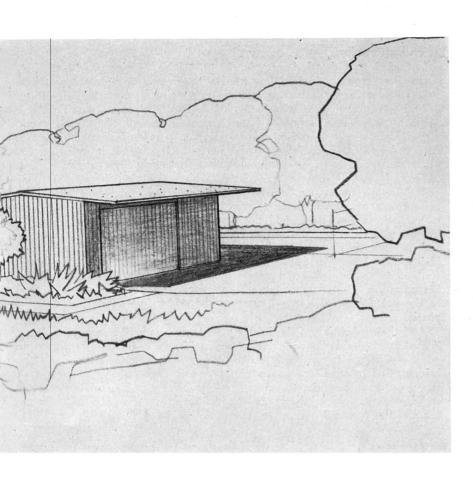
The exterior walls are 10'' brick and glass. The fixed sash is let into routed  $4 \times 4$  posts, and the fence picks up the same pattern by the use of  $\frac{1}{4}''$  transite set in a similar manner.







### A SUBURBAN HOUSE BY THORNTON M. ABELL, ARCHITECT



Location: A large gently-sloping site at the edge of a canyon, with wide distant view of ocean, channel islands and mountains. There are several large oak trees and the site has outcroppings of natural rocks.

Requirements: A house for a young family including three children, two boys and a girl. With limited budget but maximum requirements, the problem was to develop a scheme with utmost economy of structure and greatest usable space. With children in the family, it was important that the kitchen be well integrated with a family room. It was equally important that there be a study space in the parents' bedroom, to escape television when necessary. With so close a budget, there had to be some part of the house that could be postponed, if need be, without materially reducing the accommodations. The plan is so arranged that the parents and each child have a bedroom. The children's bath has outdoor as well as indoor access. The laundry is purposely located near the bedrooms, the source of linens and clothing. There is a toilet and lavatory near the living and family end of the house. If it should be necessary to postpone a part of the house, the living room could be delayed without inhibiting the use of any other space.

Materials: Concrete slab, with either radiant or perimeter heating; finish floor, vinyl asbestos tile; wood post and beam framing with plank roof deck; board insulation and composition rock-surfaced roof; wall finishes, T & G red cedar and drywall; counter surfaces, Formica; shower walls and wainscots, sheet vinyl; paint, vinyl emulsion type.

### THE SHAPE OF THINGS

BY J. BRONOWSKI



I should like to speak of the fundamentals of art, in industry and even outside it. What I have to say is, frankly, about aesthetics.

For two or three years now, my mind has been much occupied with problems of aesthetics. I set out some of the principles which I have reached in a lecture recently to the Royal Institute of British Architects; and it will help me to develop and you to follow my argument if I begin by stating these principles again.

In choosing to speak of these principles to a body either of architects or of designers, I imply at once that I do not regard aesthetics as a remote and abstract interest. My approach to aesthetics is not contemplative but active. I do not ask, 'What is beauty?' or even, 'How do we judge what is beautiful?' I ask as simply as I can, 'What prompts men to make something which seems beautiful, to them or to others?

This is a rational question and it deserves a rational answer. We must not retreat from it into vague intuitions, or side-step it with hymns of praise to the mystical nature of beauty. I am not talking about mystics: I am talking about human beings who make things to use and to see. A rational aesthetic must start from the conviction that art (and science too) is a normal activity of human life.

All the way back to the cave paintings and the invention of the first stone tools, what moved men either to paint or to invent was an everyday impulse. But it was an impulse in the everyday of men, not of animals. Whether we search for the beginnings either of art or of science, we have to go to those faculties which are human and not animal faculties. Something happens on the tree of evolution between the big apes and ourselves which is bound up with the development of personality; and once our branch has sprung out, Raphael and Humphry Davy lie furled in the human beginning like the leaves in the bed. What the painter and the inventor were doing, right back in the cave, was unfolding the gift of intelligent action.

If I am to ask you to study this gift, I must point to some distinction between animal behavior and human behavior. One characteristic of animal behavior is that it is dominated by the physical presence of what the animal wants or fears. The mouse is dominated by the cat, the rabbit by the stoat; and equally, the hungry animal is dominated by the sight and smell of food, or of a mate, which make him blind to everything else present. A mastiff with food just outside his cage cannot tear himself away from the bars; the food fixes him, physically, by its closeness. Move the food a few feet away from the cage, and he feels released; he remembers that there is a door at the back of the cage, and now that he can take his eyes off the food, away he races through the door and round to the front of the bars for it.

This and many other experiments make plain the compulsions which hold an animal. Even outside the clockwork of his instinctive actions, his needs fix and drive him so that he has no room for manoeuvre. A main handicap in this, of course, is that the animal lacks any apparatus, such as human speech, by which he can bring to mind what is not present. Without speech, without a familiar symbolism, how can the mastiff's mind attend to the door behind him? His attention is free, his intelligence can manoeuvre, only within the few feet in which the food is not too close to the cage and is yet within

range of sight or smell.

Man has freed himself from this dominance in two steps. First, he can remember what is out of sight. The apparatus of speech allows him to recall what is absent, and to put it beside what is present; his field of action is larger because his mind holds more choices side by side. And second, the practice of speech allows man to become familiar with the absent situation, to handle and to explore it, and so at last to become agile in it and control it. To my mind, the cave painting as much as the chipped flint tool is an attempt to control the absent environment, and both are created in the same temper; they are exercises in freeing man from the mechanical drives of nature.

In these words, I have put the central concept of my aesthetic. It is founded in the knowledge that evolution has had, for man, the direction of liberty. Of course men do at times act from necessity, as animals do. But we know them to be men when their actions have an untroubled liberty; when children play, when the young find a pleasure in abstract thought, when we weigh and choose between two ambitions. These are the human acts, and they are beautiful as a painting or an invention is beautiful, because the mind in them is free and exuberant. And you will now see why I framed my opening question so oddly; for it is not the thing done or made which is beautiful, but the doing. If we appreciate the thing, it is because we re-live the heady freedom of making it. Beauty is the by-product of interest and pleasure in the choice of action.

These are the principles in which, I believe, an active and living aesthetic must be rooted. I have developed them once again, and in detail, because I do not think that we can talk sensibly about practical design without them. Indeed, they have a special relevance to industrial design. The industrial processes have been the busy liberators of man in the last two hundred years. They have themselves sprung from a most human impulse; the impulse to use and, in order to use them, to make tools. Benjamin Franklin at the beginning of the Industrial Revolution called man the tool-making animal; the modern tool, the machine, is a characteristic human invention. In turn, the machine gives man an enlargement of freedom, and that in two ways. It gives him the choice of making new things, and thereby it opens up new uses for the things he makes. The new machine or process, the new material, and the new use: each is a work of exploration, a feeling-out of the freedom which each creates.

Let me give an historical example. In 1779 John Wilkinson, with the help of another great ironmaster Abraham Darby the younger, for the first time built a bridge of cast-iron parts, at the place which is still called Ironbridge in Shropshire. This may seem a modest technical advance. But in fact, it was a break with the centuries of timber, of stone and of brick-a breakthrough into a new dimension of the possible. It opened a new boldness in design; for example, the bridge had a semicircular arch. It invited new uses for the material, and in 1787 John Wilkinson launched the first boat made of iron. When he died in 1805, he had himself buried in an iron coffin.

Wilkinson's contemporaries felt as I do, that the iron bridge was a true enlargement of human freedom. This is why of all men Tom Paine was enthusiastic for it. Paine had no interest in bridges for themselves. His interest was in American Independence, in the coming French Revolution and its echoes in England, and in the Rights of Man. Yet, in these crises of liberty, Tom Paine found time to make and exhibit a model of an iron bridge for London; and this for the same reasons, in the same search to widen the human vision, which might prompt him today to speak up for ram-jet aircraft or the paintings of Georges Braque or the odder implications of quantum physics.

And the exploration of the bridge did not end with these pioneers. Kingdom Brunel designed the great suspension bridge which now crosses the gorge at Clifton. In our century, a succession of bold thinkers have built new bridges, first in reinforced concrete and then in pre-stressed concrete. What they have made has been useful and beautiful together, an enrichment which step by step has opened the potential of nature to us—the potential of human

use and the potential of human appreciation together.

There are people who acknowledge this physical expansion, but who refuse to see in it what I also stress, the growth of the mind and the widening of appreciation. To them, the technician is a gadgeteer but not a liberator. On the contrary, he seems to them constantly to impose limitations on what they would like to believe possible. 'You cannot do this with the material,' the technical man seems always to be saying to them; or worse, 'You must do that.' They take a simple view of human life, and it is this: that the artist is indeed a liberator, but that the scientist more and more bounds and constrains it. And lest you should think that this view is held only by dilettanti and by dealers in antiques, let me remind you rudely that it is the common view; it is indeed the commonplace view, which does duty for thought, and lightly springs to the lips, whenever a non-scientist today lays down the law about science. I should have hoped, for example, that the Society of Industrial Artists would, by the nature of its work, have been wiser than this. Yet at your recent ball on Guy Fawkes night, the ominous figure of the villain was a scientist with a hypodermic, and the designer explained that his ritual burning was a protest against the coming of a scientific society.

It is of course true that the freedom which a new discovery brings is not boundless. Iron and concrete, steam and electricity, printing and television, each new potential has its limitations. But those limitations are not imposed by the scientist; they are found by him, and by the artist, slowly as they explore the virgin field. And neither can work in the new field alone. If the artist refuses to learn, in his own person, what the scientist is discovering about the materials in which he must work, then of course he will find these limitations a burden. And equally if the scientist is too bigoted to feel himself into the sensibility and the living values of the artist, he will propose only dead structures. Both must share, both must enter into all the knowledge of their time. For knowledge which another man supplies is always a constraint; but every addition to your own knowledge is a liberation.

The deepest change in the habits of Europe and America in the last hundred years has been made by the growing use of electricity. The dynamo, the electric motor, the switch and the valve, the telephone and the thermostat, the vacuum cleaner and the refrigerator have changed our ways of living. The electric light has added to the life span and, yes, to the culture of Western peoples, simply because it has made their day longer. Can we really accept all these from the technician, and yet suppose that somehow he and the artist are at odds? Can we think that the designer is outraged by having to learn about voltage and the load factor, or humiliated by having to think of insulation? The very questions are nonsense. On the contrary, the coming of electricity has set some of the most interesting problems in domestic design, and because the artists who have solved them have taken pleasure even in the technical difficulties, they have done much to form the taste of our age.

I have glanced, with little patience, at the false opposition between the designer and the technician. This is the fallacy of the ivory tower: the notion that we live in a world whose measurements are inexorably fixed by science, and that the designer can do no more than languidly to embellish it here and there with a silk bow and a lily.

Nevertheless, this false answer does remind us that, behind it, there is a question. If the designer is not merely to decorate the thing made, what is he to do to it? Where is his place in the making of the thing? And if, as ave said, he must himself understand the techniques which go into it, now far do they fix what he is to do?

These are, in their different forms, the one fundamental question in industrial design. The thing made is held in a triangle of forces. One of these

is given by the tools and the processes which go to make it. The second is given by the materials from which it is to be made. And the third is given by the use to which the thing is to be put. If the designer has any freedom, it is within this triangle of forces or constraints. How should he use his freedom there?

There was a time when there was a ready-made answer to this question. Thirty years ago it was widely believed that, under a careful scrutiny, the triangle would be found to have no area at all. The tools, the materials and the use together were thought in themselves to imply and to fix the design. Let the designer steep himself in the industrial process, and beautiful works will flow from his hands of themselves.

We have come to see since then that this also is a fallacy: the technician's fallacy, which I call the fallacy of the iron tower. Indeed, it is difficult now to understand how anyone could ever have been deceived by it. Here we live in a world in which a thousand daily objects surround and encumber us: the chair and the lamp, the book and the cigarette lighter, spectacles and keys, men's shoes and women's hats. In the bright variety of shapes in which these are used every day, could it ever have been sensible to suppose that each has a best form? Even so universal a thing as a bottle, or so specialized a thing as a watch, does not have a best design.

There is of course a truth hidden in the fallacy of the iron tower. It is a negative truth, and it is this. You cannot be certain how to design something well, but you can be certain how to design it badly. If you make a thing in a way which goes counter to the tools with which you make it, or counter to the materials of which you make it, or counter to the use for which you make it, then you can be sure that what you make will be bad. This truth has a place, and industrial design has profited from it in the last thirty years. But it remains a negative truth; it says no more than that, if you make something which falls outside the triangle of forces which I drew, that thing will be bad. Alas, this does not prove that the triangle is a point, and it does not help us to prefer one point in it, one acceptable design to another.

Nevertheless, there are some industries in which the tools, the materials and the use come nearer to fixing the design than in most; and we should ponder what these industries are. The search for the principles of good design is bedevilled when it tries to range through all industries at once. For there is a difference between two kinds of industry; between the traditional industries and the pioneer industries.

Consider the things, the simple household things which have been pioneers in the last fifty years. I have already spoken of electric equipment, all the way from the pocket torch to the refrigerator. Go on to the gas cooker and the controlled solid fuel cooker, to the mixer and the telephone, the radio and the television set. And beyond these, consider the things which have been at the head of technical progress: the motor car, the aeroplane, the calculating machine and the electronic devices which serve it.

It will strike you at once that these are the very things which are well designed today. The industries which make them are pioneers, making new things in new ways; and the new problem, the unheard-of adventure of flying through the air, influences design in two ways. First, of course, it liberates the designer from convention; and second, it comes nearest to determining of itself the logical structure and with it the shape of the thing made. This is why the pioneer industries are leaders in design; because we sense that the things they make conform not to history but to logic. And this has been so in the past whenever a new technical advance has been made; the slung carriage, the yacht, and the cooling tower imposed their own designs, and were







### **MODERN PLANT**

BY WELTON BECKET, F.A.I.A., AND ASSOCIATES, ARCHITECTS AND ENGINEERS

MAYNARD WOODARD, DIRECTOR OF DESIGN

FURMAN MYERS, AL PETERSON, PROJECT ARCHITECTS

MEL BOGART, INTERIORS

This new building for one of the largest greeting cards companies was designed to take full advantage of the great mass of earth and rock that had led many manufacturers to consider the seven-and-one-half acre plot completely unsuitable for construction. It was economically unsound to level the terrain. It was, therefore, decided to incorporate the mound in the plan and to build over and around it, minimizing the amount of excavation. The top floor of the building overlays the entire mound area with the descending floors decreasing as the building nears the ground level. There are street level docks on each of the seven levels which permit deliveries of raw materials and shipment of finished goods, or transshipment of goods in process from any floor in the building. Two of the streets framing the site have steep grades and provide the new building with virtually ready-made ramps, and by following these perimeters it is possible to drive a car or truck to any level, including the roof on which there is a parking area for 500 automobiles.

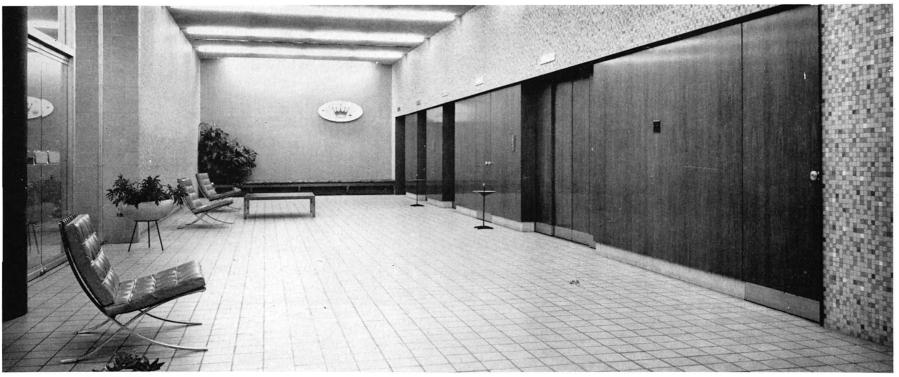
The building is designed to provide great efficiency in work flow with raw materials entering the building at the seventh floor, moving down to the other floors for the various manufacturing processes. The top floor houses the general offices and its art staff. The north wall has been constructed of glass to admit light for the work requirements. A roof featuring skylights in saw-tooth arrangements provides north light. Roof gardens and patios have been planned for employees. The structure is of reinforced concrete and encloses 750,000 square feet.

"The introduction of the inverted design of a structure such as the Hallmark offices and factory could well be the preview of an entirely new conception of the utilization of hillside property. Heretofore such sites were thought to be practically useless regardless of their location. However, this comparatively new approach to architectural design in relation to hillside sites can make available to many manufacturers a vast number of production advantages uncommon in conventional-type structures.

The inverted-type industrial building allows manufacturing operations on every level with the additional asset of a street entrance at each level.

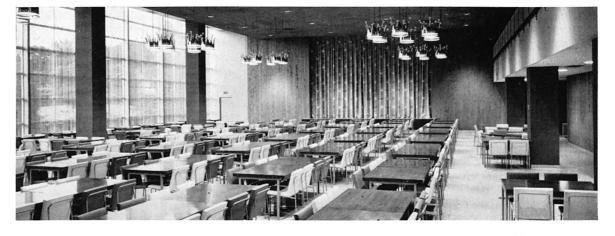
In the majority of situations a large top-level area allows for greater flexibility of production, plus adequate space for raw materials and shop operations.

The gravital flow of the product to the lower levels permits less expensive processing, order filling, and shipping."—Welton Becket, F.A.I.A.



PHOTOGRAPHS BY WAYNE WRIGHT













### EXPERIMENTAL HOUSE X-100 A. QUINCY JONES AND FREDERICK E. EMMONS, ARCHITECTS

Two installations in kitchen of surface units. Two installations in kitchen of surface units. Top-of-the-range cooking unit installed in counter with "Thermal Eye" thermostatic control for constant heat control. Special burner with "Varispeed" control will heat to full red heat in 26 seconds.

No walls or partitions are structural. Interior partitions treated as furnishings more than mere walls or boundaries of rooms. Formica colors and treatment of partitions are conceived as in-tegral part of both architectural design of struc-ture and design of the interior. Objective is to create overall feeling of home rather than single out a wall here or a piece of furniture there. BUILDER: EICHLER HOMES

STRUCTURAL DESIGN: WILLIAM R. MASON, C. E.

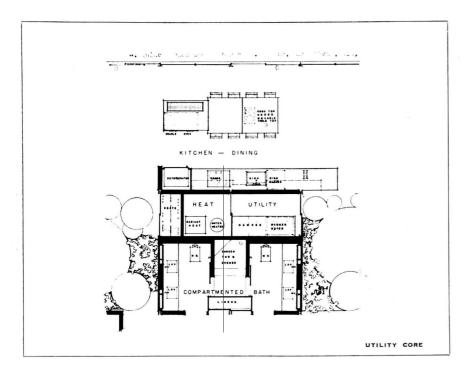
LANDSCAPE ARCHITECT: DOUGLAS BAYLIS

INTERIOR DESIGNER: ANNE K. KNORR

SCULPTURE AND SPECIAL ART: MATT KAHN

ACCESSORIES: GUMP'S OF SAN FRANCISCO







This experiment in building, just completed by Eichler Homes and designated as X-100, has been designed and built as a public service in order to display the newest and most workable ideas in the modern house. While the builders are aware that, for one reason or another, some products and practices are not practical unless modified, it was the purpose of the project to develop from the early stages of research the use of materials most practical and useful and the most advanced structure. It was not intended that this house be a production model itself, but many of the features which proved most workable will be included by Eichler Homes in their new development now under construction.

ARTS & ARCHITECTURE has followed the proam of this undertaking since its inception. (See ARCHITECTURE, November 1956) and we now present the finished product which has been opened for public inspection.

Skylight over revolving fireplace between living room and entry garden 8' x 21'.

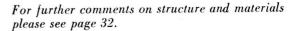
Four additional Skydome installations, each two feet square, are located for specific light needs. One is over the built-in Thermador top-of-therange cooking unit in kitchen; another is over laundry area of utility room; two are located in bathrooms.

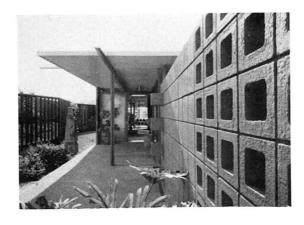
The latter two, one in each bath, are located over the lavatory counters at the opposite end which is lighted by the long, 32' skylight. This provides a skylight over each end of the bath wall which has two lavatories and means that light comes from both directions.





Lateral rigidity of building is taken through the columns as cantilevers from footings. Steel appears in stock sizes only; no special sizes in house.









### STRUCTURAL SYSTEM BY HORACIO ACEVEDO, ARCHITECT

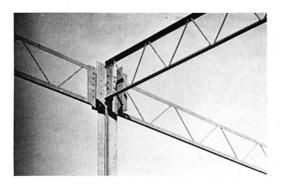
This prefabricated structural system was developed for an oil company faced with the problem of placing service structures on strategic sites available for relatively short periods of time. The architecture indicated is designed on a module of 8'-5" characterized by its 100% recoverability being completely prefabricated and featuring extremely simple assembly, making it possible for the whole structure to be taken down and reassembled on another site.

The structure of pillars, beams, bracings, is made totally of steel, designed according to locally marketed stock sections emphasizing economy in fabrication. The walls are formed of panels of two kinds which slide into "V" grooved slots in the pillars. One glazed in a steel frame; the

other, 3" solid panels of expanded cement so saving 50% in weight. These cement panels have tongue and groove points top and bottom which are weather sealed on assembly. They are generally finished for painting "in situ" except when required for washdown, greasing or toilets in which case they are surfaced in the factory with glazed tiles. The ceilings are constructed with asbestos sheets that screw directly to the bottom chord of the truss (Havemeyer type). The parabolic roof panels of corrugated asbestos were specially designed so that the corrugations eliminate all intermediate support between trusses. The edges of the panels are received by the top chord of the truss, and are simple to install, thus again achieving economy. The main structure has been designed and engineered to act

(Continued on Page 31)









Interior cases and dividers are built of perforated steel tubes and reversible plywood panels bolted together with brass bolts. Any panel may be used vertically, horizontally, or perpendicularly. With four sizes of panels and three sizes of tubes a wide variety of shapes fufill all the needs of the interior. All units are painted or varnished. Designed by Horacio Acevedo and Peter Sinclaire.





### HOUSE BY KOLB ASSOCIATES, ARCHITECTS

RIDI KOLB, ASSOCIATE



Project: One family dwelling with large living room, kitchen, terrace, 2 bathrooms, children's playroom, bedrooms for 3 children and master-bedroom, all built-in wardrobes.

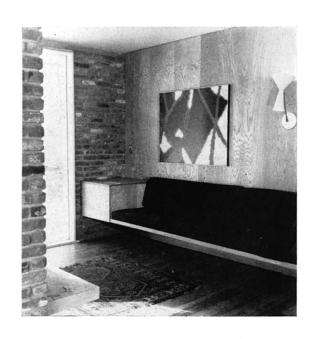
The lot is situated on a hill bordered by a road, with rock formations under the natural terrain.

Solution: To eliminate blasting and excavating in the rocky terrain, the lot required that plan of the house be developed with its full length parallel to the road. Little excavating was necessary to have crawl space under the house and a cellar under half of the living room. Besides the 8'x8' thermopane windows the living room has 2 louvre windows for cross ventilation. The fireplace stands free in the living room and is open from both sides with the hearth raised. The kitchen is a separate round element which also stands free in the living room. All utilities in the kitchen are standard equipment, built into a half-round Formica countertop. On the ceiling is a plastic dome with built-in fan. One side of the round kitchen wall opens with 2 half-round doors to expose a countertop with 3 bar stools underneath, which can be used as breakfast bar or bar. From the kitchen one door leads to the screened terrace for outdoor eating.

Construction and Material: The building is brick and from the corners there are brick walls continued to eliminate the boxy look. All 8'x8' glass panels are thermopane. In the bathrooms and kitchen is a plastic dome with electric fan for ventilation and light. The inside walls in the living room on the northwest and southeast sides are natural brick and also the 2 bearing walls of the fireplace. All other walls in the living room and the kitchen wall are ash plywood with natural finish. The floor is hardwood with plastic lacquer coating and all ceilings are painted white.

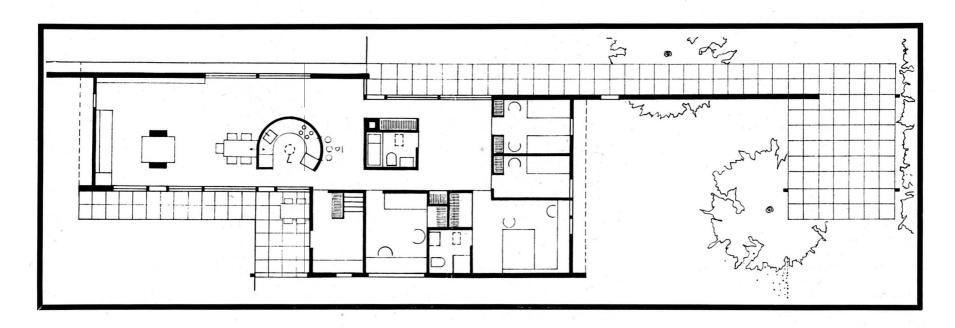
Heating: The heating is oil with forced hot air and can in summer be converted to complete air conditioning of the whole house.

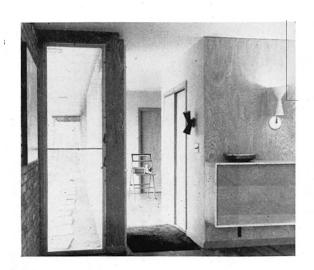
All furniture and lighting fixtures are designed by Kolb Associates.



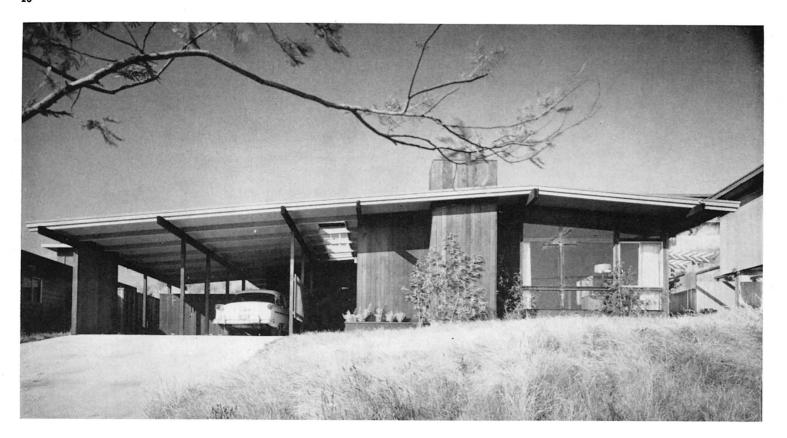


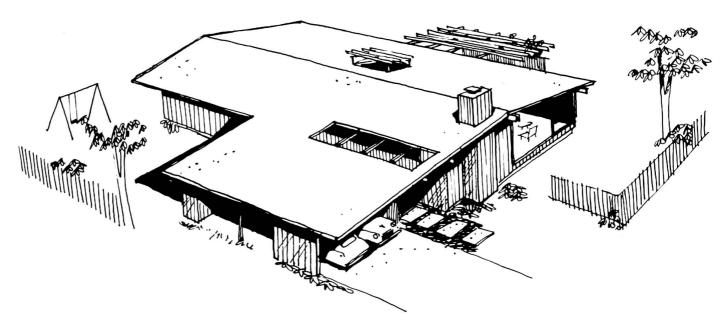












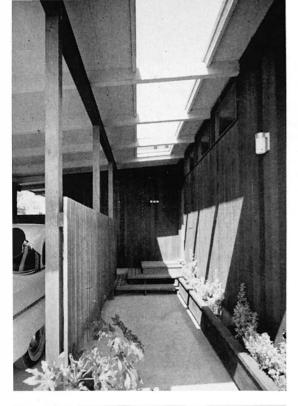
"BUILDER'S HOUSE" BY ROBERT B. MARQUIS ASSOCIATES



FOR P. A. BATES, INC.

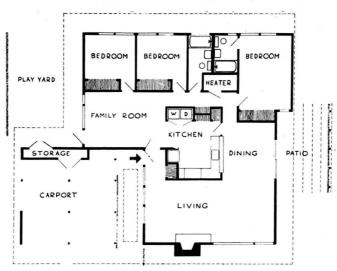
This is one of a group of builder's houses as opposed to the tract house. It is undertaken on the basis of four or five units done by the builder in an already established urban community. It contains 1650 square feet of actual living area. The central kitchen is sky-lighted by a Wascolite plastic dome and is open on one side, over a serving counter, to the dining room and the view beyond, on the other side it opens to the all-purpose area and the children's play yard. Circulation on either side of the kitchen core makes it possible to avoid passing through the living room to reach bath, kitchen or bedrooms. Conversely, one can go anywhere in the house without passing through the all-purpose room.

Exterior finish is re-sawn vertical redwood; inside finishes are sheetrock and 4'' vertical hemlock siding in the living room. The slightly sloping roof is constructed of  $4 \times 6$  rafters on 4-foot centers with enclosed plywood sheathing.









PHOTOGRAPHS BY ERNEST BRAUN





### MUSIC

(Continued from Page 8)

preserved to a mature age the advantages of an unripening precocity. The fingers and memory function capably, unhampered by intelligence.

During the period covered by the preceding reviews I took part in two discussion panels. The first, at the Sierra Madre Public Library, had for subject, Is Jazz Music? The second, a special event offered to the subscribers of the Monday Evening Concerts, proceeded out of the embarrassing title, or proposal, Let Us Lead You by the Hand through Modern Music. The former panel was set up in the usual style of such affairs, the speakers sitting behind a table facing an audience and rising one by one to give forth their ideas. The other conformed more nearly to my belief that in such a discussion the prepared voices should not be separated from the unprepared. We clustered facing one another near a piano keyboard, closely surrounded on three sides by audience.

I am modest about my attainments as a listener to jazz, believing that I need not seek it, since it will surely find me out. The event proved me wrong. Having arrived first I was given the choice of openings and elected to fire first. To clear up the historical side, I found jazz rhythm in Machaut's hocquet (or hiccup) and throughout Beethoven. I have been especially aware of it in Elizabethan dances, when these are played as dances instead of as concert pieces. Copland would perhaps question this general opinion, based on the presence of offbeat and cross-rhythm, if I am to believe Julia Smith, who quotes the types of rhythms Copland holds to be fundamentally jazz. I pointed out how Mozart simplified and subtleized the art of popular improvisation by developing a method of relatively uniform progressive variations.

Critics rather commonly dismiss these keyboard variations as a low grade of music, at least for Mozart. Critics prefer to dwell at the level of the confirmed masterpiece. Tovey, who first brought to attention the unerring accuracy with which Mozart solved the problem of the piano concerto, fails to remark the similar decisiveness of Mozart's improvised variations on a theme. I am not speaking of large composed pieces, such as Bach's Goldberg Variations, or the sets by Beethoven and Brahms.\* Nor do I mean such large special inventions as Bach, Handel, Scarlatti, Beethoven, and Mozart turned out at request: we have some of the products but not the formula. Mozart's keyboard variations are the formula to perfection, at every period of his style.

Then I went to Africa, mentioning a few excerpts from one of the best radio shows I have heard, a history of jazz. This history began with African native music—I recall particularly a tribe in which the only music is made by women splashing water rhythmically with their hands, a pleasing effect, if limited in range. Then it went

on to Cuban drumming, to a wonderful ancient record of an old New Orleans band, when New Orleans bands still played band music; then to King Oliver; up to Chicago and Bix Beiderbecke; and the next thing you know we were into the commercial bands, which I call the dead end and decay of jazz. Afterwards the broadcast showed what happened when the Cuban drummers were imported for a new commercial kick; then, going back to Africa, what happened when American jazz returned to Leopoldsville in the Congo. There a group of newly acculturated jazzmen were given five minutes to look over The Battle Hymn of the Republic, then turned it loose on their horns. That was jazz.

Panelist number two deprecated some of my remarks and offered for demonstration a few recent records—what they call "cool jazz". Here again was the Battle Hymn, turned out, so help me, with vibraphone, full of soulful pauses, in the harmony of Ethelbert Nevin. Here was Andre Previn, whom I mentioned playing at Beethoven. Now he was playing at Hummel in the name of "jazz." This is what jazz has come to, something a little sweeter and less articulate than Muzak, if I am to believe my fellow panelists. They believe in it. Only one record, supplied by the third speaker, had enough rhythm to be what an old alumnus of Fletcher Henderson might call jazz. In it a solo clarinet seemed to be borrowing tricks from the shakuhachi. No, I didn't hear Brubeck or Mulligan. I hesitated to mention them, after what had been said by my fellow-thinkers about Gershwin, Whiteman, and other sweet and venerable names.

Tonight I put on Robert Craft's record of Schoenberg's Suite for seven instruments and found it packed with jazz. It used to be said, by Virgil Thomson for one, that Schoenberg had mastered every art of music except rhythm. Thomson must have had in mind the earlier works still in or near the Viennese style of Brahms, Richard Strauss, and Mahler. Oh well, I'm cranky and opinionated!

It's not up to me to tell the public, or earnest devotees, what jazz is or should be. But I'll bet none of the music, so-called, I heard that evening will stand in the company of King Oliver, when Gabriel borrows Armstrong's Golden Horn.

For the other panel I had been invited, at my own suggestion, to play the role of Devil's Advocate, the pious monk who must search the record for sin and human frailty when a new saint comes rolling in. The elect on this occasion were Aaron Copland and Pierre Boulez. Speaking for Copland, represented by his Piano Quartet, in mild row style, was Ingolf Dahl; for Boulez and his Flute Sonata, an extreme row, Leonard Stein. Lawrence Morton acted as moderator.

The talk started mildly enough, but before the evening ended blood had been shed. Leonard Stein shed it for Boulez. Copland's sanctity had been doubtfully regarded; Boulez had lost his halo. The audience mixed in delightedly. At the end each of the principals offered a few words in favor of listening to new music, no matter what anybody thinks about it.

It was also suggested, as usually occurs on such occasions, that no new work can be heard properly, or heard at all, if one is to believe the more fanatic voices, until it has been listened at many

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<sup>\*</sup>This reminds me to bring up an enigmatic sentence by Copland, writing to John Kirkpatrick about the Piano Variations: "You're right about Thematic Variations. I should like to call them like Bach did the Goldberg Variations—but thus far haven't been able to think up a good one."

times. This pious qualification was repeated in the ensuing conversation over coffee and cakes.

I disagree. Qualitative opinions, which my fellow speakers denigrate as mere misinformation, are the digestive juices of the arts. If the ordinary listener, as my friends insist, is to be forbidden to make up his mind about a piece of music, that is, form a qualitative opinion or say what he thinks about it, until he has heard it an indefinite number of times, he might as well be deaf or stay home and accept what the radio brings him.

A good listener, whatever he may think, reacts. His reaction, rationalized in words, in his opinion. Fortune defend the artist from an audience that won't react! Better any reaction than none. A tepid piece, an acceptable piece, even a piece that brings forth thunderous applause at a first hearing is either dead from the start or dangerously near to being obsolete. Remember Schwanda der Dudelsackpfeifer. So after a few years you may by an effort recall Orff. The work that counts is the one that can't be assimilated and won't be denied; it irritates. The piece you can't get inside is the one you want eventually to get back to. The heresy that difficult music must by that fact be serious and deep has taken hold of the devout partisan of whatever is advanced. Too much young talent is wasting its substance in producing work that is merely complicated and vulgar and superficial. To follow Webern and Schoenberg you need to understand thoroughly what Schoenberg and Webern accomplished. Schoenberg was the first to insist that the weaving of tone rows will not produce good music.

Granted that a large part of any conventional audience is made up of listeners as hopelessly routined as the ordinary critic. Such listeners will never make their way inside a demanding new composition until it has been heard so often, usually by other people, that it has become safely acceptable on its reputation—and even then they won't like it until it, too, is routined. After that it is still questionable how many really make their way inside it. To accept piously the belief that whatever appears difficult must be for that reason either important or badly written is not heretical; it is only superstitious. The notion that a great work of art must be heard many times before one dares form an opinion about it may be a cry for justice and a plea for toleration; it is more often an excuse for letting someone else do the thinking and reacting, and for accepting the decision after a verdict has been brought in. A good listener reacts violently at a first hearing and continues reacting every time he hears a work fresh. Beware the listener who distrusts his first reaction. He is as unsure at the tenth hearing. He defends himself by what he calls "popularity" and the boxoffice. He is no less an enemy of musical growth than the firm fellow whose mind sets like concrete.

The human mind at its best is never content with being where it is. In geography, in science, in art, in philosophy, in religion it searches for the unique adventure. Adventure involves purpose; mere derring-do or foolhardiness is for the dilettante, the nihilist whose ambition may be in it but not his heart.

At the next Monday Evening Concert the taste for adventure was stirred. Wolfgang Faenkel's Variations and Fantasies on a Schoenberg Theme, for piano solo, played by Leonard Stein, disposed a futility of complex notation between the opening and closing appearances of its chaste theme. The style parodies Reger, as Reger parodied Brahms. As I listened I thought how surely the future opens before a creative intelligence like that of Schoenberg and how impenetrable it is to a composer who cannot live that effort. The future of music is not invented by the great composers; they enter it with a sure sense of direction. For a long time they are lonely in it, and then it is the present, their art the present assumption. If we go there quickly with them, we may share their discoveries; if not, we save ourselves discomfort. Our opinion is temporary and makes no real difference. They are there, and nothing we can say against them will change the fact.

The Diptych for Clarinet Solo by Marc Wilkinson has for movement titles two metronomic indications, a distinct improvement over the allegro-andante-vivace type of thing, where the word is what you choose to make it. Edmund Chassman played the difficult and jerky designs with commendable skill. The writing makes an acceptable try at individuality; it holds the ear. The economical style is free of the more obvious cliches. This negative comment may be

taken for praise, since in a new piece the obvious is what an experienced listener will hear first. Marc Wilkinson deserves attention.

The Sonatine for Flute and Piano by Pierre Boulez roused my warm admiration for the flutist, Arthur Hoberman, whose control of the innumerable and often uncomfortable embellishments had improved vastly since he made the tape-recording offered by Leonard Stein for demonstration at the gathering I have mentioned. Boulez masks his simplicities in horrid time-beating complications and frequently tortured sound. His music is said by some to represent what happened to the soul of France during the occupation; by others it is regarded as the farther extreme of the tone row, beyond the point where Schoenberg unaccountably drew back. The composer tries to combine higher registers of the flute with the piano to produce an effort of steely glints. He tries too often, interspersing heavy, ill-defined solos for piano. He clumps towards an end he cannot find and quits only when the flutist has been brought near exhaustion. The rhythmic complications distract the players, yet the beat falls stiff and monotonous. This is the third work by Boulez I have heard. He is erudite and arid, challenging and not very competent.

After so much jagged dissonance, unresolved by evident purpose, the first chord of the Concerto for Oboe and Chamber Orchestra by Lukas Foss sounded in the ear like a benison. Lukas Foss is prodigal of talent but lacks the ability or persistence to hang on to an idea until he has turned it into a composition. As improvisation the Concerto would seem a flash of genius; as a work of genius it is all improvisation. Solos and cadenzas flitter about, but the play between soloist and orchestra of a true concerto is never achieved. He lacks the willingness to be simple and the determination to penetrate far enough to become either complex or substantial. He tries always for the effect but will not build to it nor stay for an answer.

A good-sized audience responded to the difficult music with unfailing courtesy, interest, and genuine enthusiasm. Like it or not, they listened.

### The Shape of Things by J. Bronowski

(Continued from Page 17)

beautiful in their day, exactly like the jet aircraft and the delta wing today.

Because the pioneer things interest and satisfy us, there grows from them a custom in the eye which forms our taste for other things. There is for example a good deal of banter about the word 'streamline,' and designers are asked why an electric iron should be made to look as if it could fly through the air. The streamlining of such things is of course an echo of functional design which was appropriate in aeroplanes and, rather less so, in motor cars, where it began. But it is not therefore inappropriate to other things, to which it extends the taste which has been trained elsewhere. We are now distressed by protruberances on an electric iron or a piece of furniture, not because we want either to fly through the air, but because machines that fly through the air have taught us to question the purpose of such decorations. In this way, the pioneer industries create a unity of appreciation, and bring home to us that no design can be made or judged in isolation from others. The boldness which they teach becomes a model for all design.

Even the pioneer industries do not conform to the fallacy of the iron tower. There are many makes of motor car; and the Farnborough Air Show in any year shows that it is possible to make the most modern aeroplanes in a dozen shapes, all of them dazzlingly handsome. What is true, however, is that in the pioneer industries the technical needs determine the design more nearly than in others. The chief determinant in the traditional industries is history; but in the pioneer industries, the chief determinant is logic. Here the layout of the process and the mutual arrangement of the functions impose an order of their own, which makes some overriding demands of structure. The logical relations imply certain spatial relations: above all, they imply that the important element in the design shall be the shape.

We have grown used to the notion that what is to be designed is the shape of a thing, and it now seems to us self-evident. But in fact, it is a revolutionary notion. The Victorian designer was not asked to shape things but to decorate them. Ours is not the first age to be preoccupied with shape, of course: the Greek sculptors were,

(Continued on Page 30)

and the Gothic masons. In recent history, however, the trend of art for long was away from the logic of structure in space, and we should recognize our own preoccupation with it for what it is, a new and radical approach to the world about us.

This approach is not confined to industrial or, for that matter, to any other art. The streamlined iron and the Scandinavian chair are expressions and, more, are explorations of a universal interest in the shape of things, as much as the sculpture of Brancusi and Henry Moore. This new interest, and the shift from Victorian interests, is as striking in the sciences.

For the sciences equally have changed their preoccupation. A hundred years ago, it was the pursuit and manipulation of exact measurements. The great advances in physics and chemistry in the nineteenth century rested on this, and so created the picture (it is still the popular picture) that science is wholly concerned with quantity. But the concern of science today is very different: it is with relation, with structure, and with shape.

Today we hardly ask how large space is, but whether it is open or closed on itself. We say that rubber stretches because its atoms are strung out in chains, and a diamond does not because the atoms are locked in a closed pattern of rings. We believe that the enzymes in the body fit the chemicals which they rebuild as a key fits a lock. And when we are asked why bacteria absorb the sulpha drug on which they cannot grow, we answer that the drug deceives them: its molecules have the same shape as the body chemical which the bacteria seek

The most striking example of this geometrical way of thinking, as it were, is in the researches of the last years on the nature of life itself. How are living things able to reproduce themselves in exact copies? We have had our first inkling in recent work on the structure of the nucleic acids which are important in all living things. The molecule of a nucleic acid appears to consist of a pair of spirals, each wound round the other and held to it by cross-links. If one spiral of a pair splits away from the other, it seems likely that new atoms can only join it at the links in such a way that they form a spiral of precisely the same kind. Thus the arrangement seems designed to reproduce itself, and we glimpse the reproductive process in the very shape of its parts.

These examples illustrate that, wherever we think in our society, we express logical relations as structure, and we express structure in shape. The interest of the industrial designer is part of the interest of our whole society and, in the pioneer industries, he leads this interest. Such an interest is natural in an age of discovery, when new tools, new materials and new uses crowd round us and carry us headlong to new ways of ordering our lives. Our age is, like all great ages, an age of transformation: this is why, like other great ages, we are still looking for our own taste, and will go on doing so until the great days are over. In an age of transformation, it is clearer than at other times that a sound aesthetic must grow from the actions that are practiced and the things that are used, the characteristic actions and the new things, every day.

It is easy for us, living in this thought, to blame the Victorians for their indifference to aesthetics in the things they made. But of course the Victorian indifference was an aesthetic—a bad aesthetic, but a positive one. Their furniture and hardware are often thought to have been bad because their taste in pictures was bad. This is not so; it is the other way about; the Victorian taste in pictures was debased because it was not founded on a bold and active taste in the things they made. The taste of an age is a unity, and if we want to avoid the monumental boredom of the Victorians in painting and literature, we must first avoid making mud huts in modern materials.

I should like to end with some reflections on the fine arts, and to do so I ought first to glance at the place of decoration in industrial art. After all that I have said, why do we take pleasure in the decoration of things which adds nothing to their use? The engraved glass, the silver candlestick, the painted cart have already solved all their functional problems before they are engraved, chased or painted. If the maker does not stop at the formal solution, it is because the very handling of the materials fills him with a desire for more. He is conquered by a sense of pleasure and of exuberance. The freedom which the materials give him makes him boldly stretch and reach; and his ease in them makes him, as it made the baroque architect, gay and extravagant. Each of us can picture this feeling best in his

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own profession, and since my profession is mathematics, I will sketch it for you there.

Mathematics is a language: the language in which in the first place we discuss those parts of the real world which can be described by numbers or by similar relations of order. But with the workaday business of translating the facts into this language there naturally goes, in those who are good at it, a pleasure in the activity itself. They find the language richer than its bare content; what is translated comes to mean less to them than the logic and the style of saying it; and from these overtones grows mathematics as a literature in its own right. Pure mathematics grows from what began as an application.

I am by temperament as well as by profession a pure mathematician. It is natural therefore that I like literature better than the newspapers, poetry better than prose, and the imaginative film better than the documentary. To tell you the truth, I like pure art better than industrial art. But for just this reason, I am alive to the importance of applied mathematics and the newspaper, of prose and the documentary film and industrial art. No true appreciation of pure mathematics or of poetry can grow except from these strong roots. And if you neglect the seed-ground of a lively industrial art, then all art withers.

We can see these origins plain, I think, in modern painting. The rise of abstract painting is, of course, a part of the universal interest in structure and shape. Indeed, the phrase 'significant form' was used by Clive Bell before abstract painting was regarded, when the main influence was that of the Impressionists. There are critics who believe that the appreciation of these forms is inborn in men, as a sensuous pleasure in abstract shape. I do not share this belief, which I think is contradicted by the art of many earlier ages. To my mind, pleasure in abstract structure is part of the thought of our age, as much as the scientific speculations which I have quoted. And the structures, the shapes, which give us pleasure take their significance from our own experience: from the delta wing and the Meccano set, and from biological research and our growing understanding of the patterns which make plants and animals work.

While I was preparing this oration, the Minister of Education, Sir David Eccles, opened an exhibition at which he spoke of a rising

taste in industrial art. Twenty-five years from now, he said, it will be difficult to sell an ugly object; and he based his hope on this ground (among others), that 'television will do for the visual arts what radio has done for music.' I should take the Minister's prophecy more seriously if I could take his analysis seriously. But you will notice that, characteristically, it approaches industrial art by way of the fine arts. Men are to learn what they should ask of the things they live with by looking at a screen in the dark, passively, as they might listen to music.

By contrast, I have presented an active aesthetic, in which pure art grows from practical art. To me, art and science belong to the everyday of human action, and are essentially human because they explore the freedom which man's intelligence constantly creates for him. Because ours is an industrial age, this freedom is expanding fast, in new tools, new materials and new uses. The designer must understand their techniques at first hand, for they form the logic for his design. It is characteristic of our age that we express logic as structure, and structure in shape. This is striking in the designs in our pioneer industries, where logic comes nearest to fixing the shape, and which therefore form our taste. Yet even there, the techniques do not wholly fix the design, because no design exists in isolation from others. There is a unity among the things we make, a unity of purpose and of action, which shapes their design towards the image of an age. The practical artist expresses, and at his best he leads, the unification of our age, in which its growing points and its intellectual monuments become one. This is why I regard the work of the industrial artist highly and critically; why I see in his struggle with the shape of things the preoccupation of all thought today; and why I have made this oration the occasion to trace what I believe to be the profound basis of his work.

### STRUCTURAL SYSTEM-HORACIO ACEVEDO

(Continued from Page 22)

as a rigid frame anchored to concrete piers.

The pillars have a Maltese cross section and are placed at 45° to the wall line allowing many possible combinations at the wall intersections, the base of the pillar is a square plate for bolting to the foundations and the capital is "U" shaped to receive the truss. The truss is rigid frame anchored to concrete piers. The beam is a double unit of parallel structure enabling the panels to slide between when assembling the walls, the height of the beam (12") permits a fairly long run of gutter. Drain pipes being on the outside of the walls, the positions of the gutters depend only on the way the roofing is placed.

### NOTES IN PASSING

(Continued from Page 9)

Gross bias can be avoided by the exercise of normal professional standards of accuracy and fairness. Bias of a less obvious kind is almost impossible to avoid because it may be no more than the reflection of the impact of the news upon the editor or sub-editor himself or represent his almost instinctive professional appreciation of how the news will strike his particular readers.

I said earlier that ideally there should be a complete separation of news and comment. Yet within this ideal there are, I think, certain exceptions which, so long as they are made openly can be useful.

The increasing complexity of much international and economic news is such that it is difficult for the ordinary general reader to find his way among much of it without expert guidance. In such circumstances the bare reporting of facts may itself be misleading, since without help the reader cannot possibly understand their implications.

It seems to me, therefore, that in such fields the quality of news may be not reduced but enhanced where an experienced correspondent—diplomatic, political, economic or whatever the subject may be—not only reports the facts but himself interprets and even comments upon them. What is essential is that it should always be made clear that he is doing so and that he himself should plainly differentiate between what is report and what is comment in his article.

The means to collect and distribute news; acceptance of the responsibility to report the facts—not necessarily all of them, for that, indeed, would often be physically impossible, but enough of those that are significant to give a fair and balanced picture: as clear a discrimination between news and comment as the inherently subjective nature of most human judgment makes possible—all these are necessary if the quality of news is to be maintained.

But more still is needed—continuity of reporting. This is a quality

not always to be found even in many otherwise excellent papers.

In the recent survey of news treatment by seventeen major dailies made by Unesco in the publication "One Week's News" th conclusion was reached that although most of the seventeen papers referred to all major events in one form and nanother the news was seldom presented in a systematic way. This is true of almost all newspapers of large circulation. It is becoming not less but more so with increasing emphasis on display and headline treatment.

"The reader consequently," continues the Unesco report, "has to make an effort to inform himself. If he really wants to know what has occurred his close attention is required even for papers which are intended to be read quickly and superficially."

Although this absence of systematic reporting is a defect of modern journalism and one to which those who are professionally concerned about the quality of news need to give their most serious consideration, its indirect effect may not be wholly bad. If it should, indeed, bring the reader "to make an effort to inform himself" then its ultimate consequences are likely to be excellent. In the last resort the quality of news depends upon the reader no less than the writer. The wise reader is he who takes what his newspaper has to offer, not as a final statement on events, but as raw material from which to fashion an idependent judgment of his own.—UNESCO. FRANCIS WILLIAMS.

### TWO COMMERCIAL BUILDINGS BY CRAIG ELLWOOD ASSOCIATES

(Continued from Page 10)

of the building. Earthquake and wind loads are transferred to this frame through the roof sheathing diaphragm.

The structure is unique and original in its use of aluminum grilles for courtyard screen walls. The all-glass exterior wall of the building and the entry doors are recessed 12 feet back from the screen walls. The waiting area and the president's conference room will each overlook a garden court. The aluminum grilles will effect privacy from the street and control the western sun without restricting light. Overhead protection from the sun in the courts will be accomplished with canopies of blue heat-absorbing wire glass.

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# J. O. B.

### JOB OPPORTUNITY BULLETIN

FOR ARTISTS, ARCHITECTS, DESIGNERS AND MANUFACTURERS

Prepared and distributed monthly by the Institute of Contemporary Art as a service to manufacturers and to individuals desiring employment with industry either as staff or consultant designers. Commencing wtih the next issue, March 1957, charges will be made for subscriptions and advertisements. Any information as to rates and charges will be sent to you by mail. If you would like to be placed on the mailing list for J. O. B. or know of any others who would like this service, please let us know.

### J.O.B. is in two parts:

I. Openings with manufacturers and other concerns or institutions interested in securing the services of artists, architects or designers. We invite manufacturers to send us descriptions of the types of work they offer and the kinds of candidates they seek. Ordinarily the companies request that their names and addresses not be given.

II. Individual artists and designers desiring employment. We invite such to send us information about themselves and the type of employment they seek.

Please address all communications to: Editor, J.O.B., Institute of Contemporary Art, School of The Museum of Fine Arts, 230 Fenway Street, Boston, Mass., unless otherwise indicated. On all communica-

tions please indicate issue, letter and title.

### 1. OPENINGS WITH COMPANIES

A. ADVERTISING ARTIST-MECHANICAL DRAFTSMAN: Large manufacturer in Boston area seeks candidates for position combining machine and assemble drawings with advertising layout of brochures, fliers; requires good mechanical background, imagination, good color sense.

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- C. ARCHITECTURAL-INTERIOR DESIGNERS: Interior design organization, located in New York City, seeks designers, draftsmen and project managers with office layout experience. Excellent opportunity for permanent association. Salaries commensurate with experience and
- D. ART DIRECTOR of active municipal Art Center to carry on lively program of exhibitions, classes, and community programs. Applicants should have thorough educational background, some knowledge or experience in museum field, and strong desire to participate in community projects. Salary open. Applicants should send letter of application with educational credentials, photograph, and recommendations to President, Art Center Association of Sioux City, Sioux City Art Center, Commerce Building, Sioux City, Iowa.
- **E.** ARTIST for industrial design organization, visualizer; experience on point-of-purchase, packaging, store fixtures. Must be able to assume responsibility, work with accounts. Salary commensurate with ex-
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- G. ASSISTANT TO DIRECTOR OF DESIGN: Major manufacturer of machine-made glassware, located in Ohio, seeks capable all-around male designer to enter company as assistant to present Director of Design and to carry out responsibilities in product design, silk-screen decoration, and packaging problems. College degree desirable but not essential. Applicant should be 27-35 years old and have some industrial experience. Good starting salary and unlimited future in company for right man.

(Continued on Page 34)

### X-100-BY A. QUINCY JONES AND FREDERICK E. EMMONS

(Continued from Page 21)

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Non-structural 3" T-sections, 6# per lin. ft., serve as mullions to hold side walls in place.

4" gravel bed with waterproof membrane. 4" concrete slab, reinforced with 6" x 6"-10 ga. x 10 ga. steel road mesh.

Exterior walls of Arcadia sliding doors, glazed with 1/4" plate glass. The heavy gauge steel frames are factory-treated for resistance to rust and abrasion. Bottom-rolling doors slide effortlessly on stainless steel tract. Wood pile weatherstripping on all sides provides protection against wind and water, yet allows pre-fabricated type of wall which integrates outside and inside areas. Douglas fir plywood panels, 4' x 8', with overlay faces on both sides are installed for side walls of house. Pre-fabricated and pre-finished, the panels require no special maintenance, inside or outside. Correctly called "high density overlaid fir plywood," the panels are held in place by non-structural T-sections which serve as mullions. Hard, glossy overlay surface is olive drab in color. The translucent faces of the panels are resin-impregnated for durability in all kinds of

Developed for industrial applications, especially as concrete form material because of durable qualities, product is essentially new in residential construction for other than accent use. Two 3/3'' panels, shop-glued to 3/4'' frame, provide wall 11/2" thick. First use of this type in residential design.

All surfaces may be wiped clean with damp cloth. Special gutter detail of 4" steel channel (part of the miscellaneous steel in house); 5.4# per lineal ft.

Detail features dome screen over downspout. Overflow diverter plate especially designed to keep heavy flow of water at reduced rate but also installed so that water can spill over and not back up in heavy rain.

Number 3-Q decking welded to steel beams used in such a way that roof acts as a diaphragm for transmitting both earthquake and wind loadings. Plug welds which join deck to steel beams performed before roofing operations; plug welds not visible from interior.

Decking panels are crimped to tie panels together so roof acts as diaphragm.

Corrugation of decking absorbs or deflects sound as other irregular surfaces will.

Decking was spray-painted on the job. Future painting would be by brush.

All metal for both structural columns and beams and ceiling prepared carefully before painting to provide good basic surface. Process includes acid-cleaning and special treatment and shop prime coat.

Gas-fuel, hot water radiant heating system. Entire house including floor surfaces of exposed aggregate concrete in garden rooms has radiant heated floors.

Armstrong Floors of cork, 1/8" thick, 12" x 12", over concrete slab.

Circular discs of varying sizes provide floor area of texture and interest in two garden rooms.

Planted areas among discs are within ground itself; no containers for plants used.

Cork floors adjoining garden rooms fit to the concrete discs; juncture made by use of metal terrazo dividers.

Glazed with 1/4" plate glass. Master bedroom sliding glass door electrically operated.

Wardrobe, utility and coat closet doors slide horizontally and are faced with Formica.

Mill-built by Emanuel, plywood faced throughout with Formica cabinet doors 1/4" Formica, reversible.

Built-in stationary dining table with movable top has Formica surface.

First showing of new "Bilt-in" Refrigerator, slightly more than 14 cu. ft. Relationship of refrigeration compartment and freezer area determined after consumer market research. Refrigerator of 10.2 cu. ft. with freezer of 4.0 cu. ft. Freezer, located under refrigerator, will handle 140 pounds frozen food. Self-contained unit, automatic defrosting unit, integrated thermostat. Stainless steel doors.

New "Bilt-in" double oven with two large ovens, one equipped with three-spit rotisserie. Stainless steel.

On-the-table cookery possible with two-burner unit built into the dining table. Convenient for warming and cookery. Table top closes over Thermador unit when elements not in use.

Latest model in long, successful line of Waste King garbage disposal. "Super Hush-Cushions" provide more silent operation than ever. Lifetime Grind Control designed to give efficient, practical unit which takes garbage without sorting or waiting. Garbage can be scraped into drain and flushed away instantly.

First major installation of new commercial type washing action developed after 5 years of research. Undercounter unit with stainless steel door, easy to load. Handles complete service for 8 and all pots, pans and bowls for meal preparation. Silent, economical unit has contour racks for odd-shaped dishes, controlled high temperature final rinse, humidity-free drying. Dishes and silver come out spotless and sterilized, ready for shelf storage.

Built-in undercounter washer-dryer, all electric. Located in central plumbing core in the approximate center of house, accessible from bedrooms, baths and kitchen, the immediate sources of soiled goods.

Soiled clothes come from machine dryer ready for shelf storage or ironing. Although designed for "one-operation" laundry, the combination machine allows flexible stopping and altering of cycle for either washing or drying operation, as desired.

Automatic "Permaglas" water heater, "heated with gas, stored in glass." Glass lining specially developed by A. O. Smith provides protection against nearly every known corrosive substance. Dependable and constant hot water at all times. Located in central plumbing core which houses all plumbing facilities for entire house.

(Continued on Page 34)

# NOW! from Josam

# A Complete Line of "SUPERSEAL" cleanouts and Access Covers for Every Purpose ...

• Whenever Josam announces a new product, the industry has rightly expected something far better than ever made before. Now, Josam offers a complete new line of "Superseal" Cleanouts and Access Covers. There are over 90 different types in the Josam line . . . the result of long months of studying and testing of installations and of changing methods of building construction.



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Series No. Y-1510 Tee Branch with Cove



Series No. Y-120 Caulking Ferrule with Wall Plate



Series No. Y-710
Leveleze Cleanout with
Adjustable Scoriated Top



Series No. Y-330 Cut-Off Ferrule with Brass Scoriated Cover



Series No. Y-180 Brass Access Box with Hinged Cover

• Now—no matter what the requirement or the condition, there is a JOSA "Superseal" Cleanout or Access Cover to meet the need exactly . . . quickly . . . dependably. "Superseal" Cleanouts and Access Covers are engineered to save installation time, operate efficiently, last indefinitely—yet they cost no more than ordinary cleanouts and access covers!



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### X-100-BY A. QUINCY JONES AND FREDERICK E. EMMONS

(Continued from Page 33)

Steel treated with General's Rustmaster Flash Dry, a newly developed paint for steel which displaces moisture, absorbs any rust. Noted for its unusual penetrating quality. Finish coat of beams, columns are General's Trend Tones flat paint; ceiling is non-glare flat enamel.

Exterior columns, steel frames of Arcadia sliding glass doors are finished with L & S Portland Cement Paint from General.

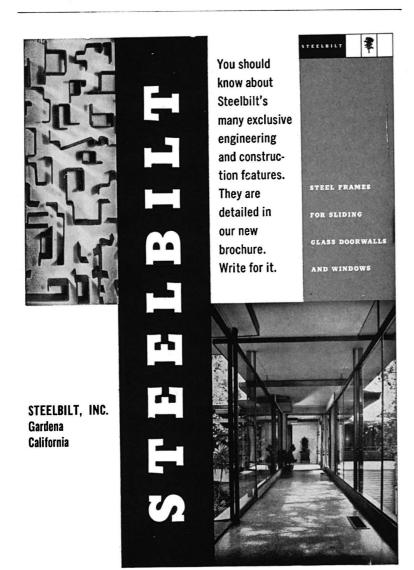
Concrete block wall is covered with Exterior Faze—General's breather plastic emulsion that is resistant to alkalies in new concrete.

Shopsmith equipment designed for home use. Located in workshop which opens to carport. May be locked when not in use. Arcadia sliding glass door which separates shop area from open carport allows light into work space but permits room to be locked.

Walls of shop covered with pegboard for storage of tools.

Skydomes provide 96 sq. ft. of skylight for natural overhead lighting of interior. Plastic used in Skydome product is light in weight, yet durable and maintenance-free.

Skylight 32' continuous length in approximate center of house extends from entry garden room across bathrooms and into all-purpose garden room.



#### J.O.B.

(Continued from Page 32)

- H. ARTIST-PACKAGE DESIGNER: Male or female; experience necessary; strong on design, lettering and layout. Immediate availability important. Package design studio, designing mostly food and textile packages. New York City.
- I. CONTEMPORARY FURNITURE DESIGNER: Unique opportunity to develop new lines of wood and steel office furniture with design firm located in New York City.
- J. DESIGNERS: Industrial design firm in New York City seeks talented designers with experience in industrial, package, graphic, furniture or interior design, although staff designers do not specialize as such and all work on many or all aspects of a design program.
- K. DESIGN TALENT: Large international corporation in Detroit area invites inquiries and applications from individuals 20-45 years of age of unusual design talent for full-time, staff employment in various departments including product (appliances), graphic, display and exhibit, interior, automotive styling, color, engineering, drafting and modelmaking. Excellent salaries (plus overtime), inspiring facilities and working conditions. If records and portfolios show real promise, company will fly candidates to Detroit for interview.
- L. DESIGNER: Large Philadelphia manufacturer of electric lighting fixtures seeks male designer 25-35 years old. Experience in furniture line helpful. Excellent opportunity. Salary commensurate with education and experience.
- M. DESIGNER-DRAFTSMAN: Large Boston department store needs as designer-draftsman someone with creative and proven ability. 4-5 years experience in department and specialty store interiors, fixture design and detailing essential. College graduate with architectural or industrial design degree preferred. Liberal employment benefits and opportunity for growth in a store with large expansion program.
- N. DESIGNER-SALESMAN: New England industrial design consulting firm invites inquiries from individuals (male or female, age 25-50) with design or art training and experience to fill full-time client relations position, working out of Boston, any part of New England or New York City, to increase firm's business and provide high standards of service.
- O. DESIGNER-STYLIST: Nationally known gift wrapping firm in Boston area seeks designer to style annual line of papers and ribbons. Designer will also assist in packaging of products, label layouts, etc. Small amount of nationwide travel will be necessary to promote line with our resident salesmen, interrogate buyers, etc.
- P. DIRECTOR OF INTERIORS: Internationally known Southern California architectural firm seeks outstanding man to assume position of Director of Interiors. Must have interior design experience combined with proven administrative ability. Commercial and industrial experience preferred. Department store, furniture manufacturing experience helpful. Excellent starting salary; opportunity to grow with progressive firm.
- **Q. DISPLAY DESIGNER:** An outstanding international corporation in Boston area seeks candidates for full-time staff position in growing company design department, for large and small scale store display designs. Modest starting salary with excellent future growth possibilities. Should have working knowledge of basic materials and interest in merchandising.
- R. DRAFTSMAN-DESIGNER: Small progressive office in Central New York State with large and varied practice seeks senior draftsman and designer. Salary commensurate with capacity and experience.
- **S. DESIGN COORDINATOR:** Progressive midwestern manufacturing concern needs a Design Coordinator. He must be experienced with an industrial design background, knowledge of window display and merchandising techniques. This is a newly created position in an important product development program. A good opportunity for a qualified
- **T. FREE-LANCE DESIGNER:** Progressive distribution organization in New York City interested in services of designer to develop well-detailed, contemporary seating pieces.
- U. FREE-LANCE DESIGNERS OF GREATER BOSTON AREA: Manufacturer of building material, acrylic plastic panels using decorative embedments, has need for several free-lance designers with flair for decorative effects and imaginative approach to use of unusual natural and synthetic materials.

- V. FURNITURE DESIGNER: Famous U. S. manufacturer of fine furniture invites inquiries from free-lance furniture designers of proven talent and success; please submit experience descriptions and photographs of work.
- W. INDUSTRIAL DESIGN INSTRUCTOR: Leading design school in East seeks full-time industrial instructor who wishes to make industrial design teaching a career. Outside activities in industrial design field encouraged in order to benefit teacher's experience and income. First assignment teaching sophomore class in design. Good future prospects.

X. INDUSTRIAL DESIGNER: Chicago office of industrial design firm has immediate opening for qualified industrial designer with minimum of

2 years' experience. Must be good renderer.

Y. INTERIOR DECORATOR: Well established small decorating firm in Redlands, Calif. needs fully qualified interior decorator. Job offers minimum salary, plus commission of sales in rapidly growing small community. Salary range depending on ability, from \$6,000.00 to \$10,000.00.

**z.** LETTERING SPECIALISTS: Artists to make master drawings of Printing Type faces for use in Photon photographic type composition equipment. Up to \$100 per week, depending upon experience.

- Au. PACKAGE DESIGNER-ENGINEER: Large national distillers want topquality man for new full-time position as manager, packaging and design; desired qualifications: mechanical engineering degree, plus degree in industrial design or advanced engineering; age 30-40; preferably glass and packaging experience; 4-5 years working experience with production phases of packaging and bottling operations; proven ability to create designs with customer and sales appeal, preferably in fancy food, beverage or other luxury fields.
- **Bb. PRODUCT DESIGNER:** Well-established, nationally known industrial design consulting firm seeks product designer with 2-3 years' experience in designing appliances, etc., for full-time position in Pittsburgh area. Salary based on experience and qualifications.
- Cc. PLASTICS COMPANY DESIGNERS: A leading Eastern manufacturer of plastics coverings (furniture, automobile, wall, etc.) has positions open in company design compartment for a male stylist with art or design training, to be given training in company's operations; and for a two-dimensional designer experienced in textile design.
- Dd. POTTER wanted to establish own studio in pre-Revolutionary building located in historic Massachusetts town; thousands of visitors yearly. Rent free in exchange for maintenance duties. Young man preferred. Ee. PRODUCT DESIGNER: Well established nationally known and respected company in midwest invites inquiries and applications from individuals 25 to 45 years of age of unusual design talent. If background information shows real promise company will fly candidate to factory for interview
- FF. WALLPAPER DESIGNER: New England manufacturer of wallpaper wishes to develop free-lance design sources. Two-dimensional designers in New England or New York area wishing to qualify should apply to Editor, J. O. B.

### II. ARTISTS AND DESIGNERS SEEKING EMPLOYMENT

The Institute does not necessarily endorse the following individuals who are listed because they have asked the Institute to help them find employment.

- A. ARCHITECT-INTERIOR DESIGNER: B.F.A., Rhode Island School of Design, 1954. 2 years' active military duty in Japan. 3 years' experience architectural drafting, working drawings, field supervision. 4 years' experience in all phases upholstered furniture manufacture. Basic knowledge ceramics production, glazing and decoration. Avocation in photography. Willing to relocate. Desires more than employment; willing to earn privilege of responsible position. Male, age 27, single.
- B. ART DIRECTOR-ADMINISTRATIVE DESIGN: B.A., Boston Univ. (C.L.A.); 2 years' Boston Museum of Fine Arts School. 1 year own design consultants group; interior installation published nationally. Art Director, industrial corporation; executive assistant, same. Experience in advertising layout, architectural design, interior planning, plant layout, ceramics, public relations, drafting. Seeks staff position in any field of design or planning. Position sought probably has not yet been named: it is some long-range project requiring executive and administrative ability, creativity, versatility, and ability to persuade VIP's. Male, age 30.
- c. ARTIST: Extensive experience designing advertising, sales promotion and public relations material with 4-A agencies and large companies. Presently employed in New York City as Sales Promotion Art

- Director for company known as largest in its field. Desires to relocate in less congested area, preferably as sales promotion and/or public relations art director with progressive company. Male, age 41, married.

  D. ARTIST-DESIGNER: Studied John Herron Art Inst. 8 years' experience in furniture and automotive field; various aspects including color, color development, design and fabric. Seeks position with firm in
- East. Male, 28, married.

  E. ARTIST-TEACHER: B.F.A., Yale Univ., 1953; 4-year certificate Hartford Art School; Trinity College; Kansas City Art Institute; 10 years' teaching on college and university level; exhibited nationally; book illustrations in national competitions sponsored by Limited Editions and Domesday Press. Prefers teaching drawing, painting, serigraphy, color, basic design. Male, age 41, married.
- F. ARTIST-TEACHER: B.A.E., M.F.A., B.A.E., Art Inst. of Chicago, 1953. M.F.A., Univ. of Chicago, 1957. 3 years experience teaching high school, elementary school and University; qualified to teach both art history and practice of art. Desires position teaching college or high school. Willing to locate anywhere in U. S. Male, age 27, married.
- G. CONSULTANT DESIGNER-EDUCATOR: B.F.A., Rhode Island School of Design. Complete presentations available on past experience in market analysis, product development, styling, sales promotion, engineering detailing and visualization, merchandising display and public relations. 15 years in varied New England industries: jewelry, home furnishings, steel, ceramics, packaging, display Director, Vesper George School of Art, 3 years; Department Head and Asso. Prof., 4 years. Prefers Boston-Providence area. Male, age 45, married.
- H. CRAFTSMAN-TEACHER: B.S. art education, Skidmore College. 2 years' experience teaching; operation of own studio shop for metal jewelry. Desires position with firm giving technical styling or marketing assistance in handcrafts to foreign concern; or as apprentice to craftsman. Female, age 24, single.
- I. DESIGNER: Experienced greeting card, package, and gift wrap designer with contemporary style, seeks free-lance or retainer account.

Male, age 35, married.

- J. DESIGNER: B.F.A., Ohio State Univ., 1951. 5 years' experience in design, estimation, production and installation of furniture; also, experience in design, estimation, production and installation of furniture; also, experience with commercial interiors and architectural projects. Seeks design position with large furniture manufacturing company. Male, age 29, married.
- K. DESIGNER-CONSULTANT: Art school training in Ireland and Canada; degrees in drawing, design. Experience in typography, printing, calligraphy, advertising layout, architecture, etc. Instructor in advertising design, Academy of Arts, Newark, N. J. Desires consultant connections with industry within 100 miles of New York City. Male, age 45, married.
- L. DESIGNER-DRAFTSMAN: Graduate, Argentina Cordoba, National Univ. Architecture School, 1956. Experienced in drafting, sketching, designing. Desires employment with U. S. firm. Male, age 24, single. Contact: Tomas Pardina Andruet, Maipu 114, Cordoba, Republica, Argentina.
- M. DESIGNER-ILLUSTRATOR: 2 years' study Wilcox Technical School, Meriden, Conn.; Vesper George School of Art, Boston; Navy veteran, grad. of Naval Photographic School; 2 years as graphic illustrator at Naval Air Station, Va. Desires position in New England area; excellent references. Male, age 27, married.
- N. DISPLAY AND ADVERTISING: Grad. Vesper George School of Art; European study; grad. U. S. Army school of engineering; 3 years graphic illustration and production control; 8 years retail display and advertising; experienced interior display and fashion coordination. References and color slides on request. Desires northeastern location but will consider far west. Male, age 27, single.
- O. GRAPHIC DESIGNER: Grad., Cooper Union, 1949. Experienced in retail, direct mail,, editorial and pharmaceutical advertising; now art director of large pharmaceutical agency in Chicago. Seeks position as art director or graphic designer in Boston area. Male, age 30, married. P. INDUSTRIAL DESIGNER: 7 years' experience in automotive styling and industrial design in Detroit, seeks permanent position with appliance manufacturer or industrial design office in Northeastern Ohio. Male, age 30, married.
- Q. INDUSTRIAL DESIGNER: Over 20 years experience designing all phases of product design; furniture and interiors, expert renderer and f.s. detailer. Seeks connection with firm in New York City on a part-time basis, as consulting, designing and detailing supervisor. Female.

36 ARTS & ARCHITECTURE

R. INDUSTRIAL DESIGNER: B.F.A. in Design, Art Inst. of Chicago, 1951. Creative, with proven ability to increase sales. 5 years diversified experience: general products, furniture, metal dining furniture; knowledge of mechanical principles, manufacturing and material usages. Presently directing design program. Willing to relocate. Male, age 31, married.

5. INTERIOR DESIGNER: B.F.A., Boston Univ., 1956. No fear of hard work. Desires to exploit potential and prove ability to become an asset to an employer who is seeking such a man. Male, 24, single.

- T. PRODUCT DESIGNER: B.F.A., Alfred Univ., 6 years varied experience with prominent industrial design office, well-known ceramic manufacturer. Member, Industrial Designers Institute. Received "Young Designers—1954" award. Desires position with industrial design office or progressive manufacturer, New York, New Jersey, Connecticut. Male, age 28, married.
- **U. PAINTER:** M.A., Univ. of California; M.A. in teaching, Radcliffe Univ. Studied with Robert Motherwell and Hans Hofmann and at Inst. of Design, Chicago. Exhibition experience. Seeks free-lance architectural commissions for murals in mosaic, ceramic tile, porcelain enamel, stained glass, etc. Female, age 25, single.
- V. INDUSTRIAL DESIGNER: B.A., Pratt Inst., 1955. Experience as package designer with nationally known firm. Desires industrial design or related position preferably in New England area. Male, age 25, single. Contact: Gary S. Hills, 97 Mt. Vernon St., Boston, Mass.

### CURRENTLY AVAILABLE PRODUCT LITERATURE AND INFORMATION

Editor's Note: This is a classified review of currently available manufacturers' literature and product information. To obtain a copy of any piece of literature or information regarding any product, list the number which precedes it on the coupon which appears below, giving your name, address, and occupation. Return the coupon to Arts & Architecture and your requests will be filled as rapidly as possible. Items preceded by a check ( $\checkmark$ ) indicate products which have been merit specified for the new Case Study House 17.

### INTERIOR DECORATION— HOME STUDY

(8282) Approved supervised home study training in all phases of interior decoration. Ideal supplementary course for architects, builders, designers. No classes. No wasted time. Text and work kit furnished. Low tuition payments. Send for free booklet. Chicago School of Interior Decoration, Dept. 8282, 835 Diversey Parkway, Chicago 14, Ill.

### NEW THIS MONTH

(296a) Contemporary Danish Furniture: New line featuring the "Bramin" convertible sofa designed by Hans Olsen, awarded first prize at the annual Danish Furniture Exhibition; other noted architects and designers include Gunni Omann, Carl Jensen, Jens Hjorth, Bjerrum, Joho. Andersen, Hovmand Olsen and N. M. Koefoed. For further information, catalog and price lists write on your letterhead to: Selected Designs, Inc., 14633 Ventura Boulevard, Sherman Oaks, California. Showrooms: Paul Rich Associates, 120 South Robertson, Los Angeles 48; K.I.P. 720 Montgomery Street, San Francisco, California.

### APPLIANCES

(292a) Built-in Ranges and Ovens: Latest developments in built-in Ovens with Glide-out Broiler, also motorized Rotisserie. Table top cook top ranges (4 or 6 burners) ready for smart built-in installation. Available in colors or stainless steel to provide sparkling interest in spacious contemporary kitchens. Send for color brochure, photos, and specifications. Western-Holly Appliance Company, 8536 Hays Street, Culver City, California.

✓ (250a) Built-in appliances: Oven unit, surface-cooking unit, dishwasher, food waste disposer, water heater, 25" washer, refrigerator and freezer are featured built-in appliances merit specified for Case Study House No. 17. Recent introductions are three budger priced appliances, an economy dryer, a 12½ cubic ft. freeze chest and a 30 range. For complete details write West inghouse Electric Supply Co., Dept. AA, 4601 So. Boyle Ave., Los Angeles 38. Calif.

(294a) Architectural Interior Metal Work and Custom Lighting Fixtures: Specializing in the design and fabrication of decorative metal work, murals, contemporary lighting fixtures and planning, room dividers, and decorative fixtures of all types for stores, office buildings, restaurants, cocktail lounges, hotels and homes. Sculptured metals, tropical hardwoods, mosaics, glass and plastics are used in the fabrication of these designs. Send for information and sample decorative plastic kit, Strickley & Company, 711 South Grandview Street, Los Angeles 57, California.

### ARCHITECTURAL WOODWORK

(295a) Manufacturers of architectural woodwork, specializing in all types of fixtures for stores, offices, churches and banks. Large and complete shop facilities offer a complete range of work from small specialty shops to complete departments in large stores. Experienced staff to discuss technical or structural problems, and to render information. Laurel Line Products, 1864 W. Washington Blvd., Los Angeles 7, California.

### **DECORATIVE ACCESSORIES**

(426) Contemporary Clocks and Accessories: New collection of 8 easily mounted weather vanes, traditional and modern designs by George Nelson. Attractive folder Chronopak contempo-

rary clocks, crisp, simple, unusual models; modern fireplace accessories; lastex wire lamps, and bubble lamps, George Nelson, designer. Brochure available. One of the finest sources of information, worth study and file space.—Howard Miller Clock Co., Zeeland, Mich.

(281a) Mosaics: Studio workshop offers complete line of contemporary custom mosaic table tops, mosaic murals, architectural sculpture, contemporary furniture, special leather and brass. Original designs. Maurice Bailey Designs, 968 North La Cienega Blvd., Los Angeles 46, California. Phone: OLeander 5-8658.

(122a) Contemporary Ceramics: Information, prices, catalog contemporary ceramics by Tony Hill, includes full range table pieces, vases, ash trays, lamps, specialties; colorful, full fired. original; among best glazes in industry; merit specified several times CSHouse Program magazine Arts & Architecture; data belong in all contemporary files.—Tony Hill, 3121 West Jefferson Boulevard, Los Angeles, California.

✓ (137a) Contemporary Architectural Pottery: Information, illustrative matter, excellent line of contemporary architectural pottery designed by John Follis and Rex Goode; large manheight pots, broad and flat garden spots; mounted on variety of black iron tripod stands; clean, strong designs; data belongs in all files.—Architectural Pottery, Box 24664 Village Station, Los Angeles 24, California.

### FABRICS

(264a) Inquire for a handsome (\$1.00) file folder of 20 swatches of Granite, a heavy-duty upholstery, adapted from a hand woven original. An accordion folder of fifty different swatches with complete information may be ordered for \$3.00.

The finest contemporary fabrics from Jack Lenor Larsen, Inc., are available at Kneedler Fauchere showrooms in San Francisco and Los Angeles. These fabrics are weaver-designed, with the yarn selection, the designing, the weaving, and the sales supervised by the Larsen associates. The designers have experience in both design and architecture and know the place of fabric in the scheme of things. Write: Larsen, Inc., 36 E. 22nd St., New York, N. Y.

(171a) Contemporary Fabrics: Information one of best lines contemporary fabrics by pioneer designer Angelo Testa. Includes hand prints on cottons and sheers, woven design and correlated woven solids. Custom printing offers special colors and individual fabrics. Large and small scaled patterns plus a large variety of desirable textures furnish the answer to all your fabric needs; reasonably priced. Angelo Testa & Company, 49 East Ontario Street, Chicago 11, Illinois.

### **FURNITURE**

(188a) Baker Modern Furniture: Information complete line new contemporary furniture designed by Finn Juhl, tables, cabinets, upholstered pieces, chairs; represents new concept in modern furniture; fine detail and soft, flowing lines combined with practical approach to service and comfort; shelf and cabinet wall units permit exceptional flexibility in arrangement and usage; various sections may be combined for specific needs; cabinet units have wood or glass doors; shelves and trays can be ordered

in any combination; free standing units afford maximum storage; woods are English harewood, American walnut, white rock maple in contrasting colors—almost true white and deep brown; most pieces also available in all walnut; wood and provides protection against specil finish preserves natural finish of wear and exposure to moisture; excellent craftsmanship; data belong in all contemporary files; illustrated catalog available.—Baker Furniture, Inc., Grand Rapids, Michigan.

✓ (314) Furniture, Retail: Information top retail source best lines contemporary lamps, accessories, fabrics; designs by Eames, Aalto, Rhode, Noguchi, Nelson: complete decorative service.—Frank Brothers, 2400 American Avenue, Long Beach, Calif.

(169a) Contemporary Furniture: New 28-page illustrated color brochure gives detailed information Dunbar new modern furniture designed by Edward Wormley; describes upholstered pieces. furniture for living room, dining room, bedroom, case goods; woods include walnut, hickory, birch, cherry; good design; quality hardware, careful workmanship; data belongs in all files; send 25 cents to cover cost: Dunbar Furniture Company of Indiana, Berne, Ind.

(180a) Dux: A complete line of imported upholstered furniture and related tables, warehoused in San Francisco and New York for immediate delivery; handicrafted quality furniture moderately priced; ideally suited for residential or commercial use; write for catalog.—The Dux Company, 390 Ninth Street, San Francisco 2, California.

(138a) Contemporary Furniture: Information. Open showroom to the trade, featuring such lines as Herman Miller, Knoll, Dux, Felmore, House of Italian Handicrafts and John Stuart. Representatives for Howard Miller, Glenn of California, Kasparian, Pacific Furniture, String Design Shelves and Tables, Swedish Modern, Woolf, Lam Workshops and Vista. Also, complete line of excellent contemporary fabrics, including Angelo Testa, Schiffer, Prints, Elenhank Designers, California Woven Fabrics, Robert Sailors Fabrics, Theodore Merowitz, Florida Workshops and other lines of decorative and upholstery fabrics.

These lines will be of particular interest to Architects, Decorators and Designers. Inquiries welcomed. Carroll Sagar & Associates, 8833 Beverly Boulevard, Los Angeles 48, California.

(270a) Furniture (wholesale only): Send for new brochure on furniture and lamp designs by such artists as Finn Juhl, Karl Ekselius, Jacob Kajaer, Ib Kofod-Larsen, Eske Kristensen, Pontoppidan. Five dining tables are shown as well as many Finn Juhl designs, all made in Scandinavian workshops. Write Frederik Lunning, Distributor for Georg Jensen, Inc., 633 N. La Cienega Blvd., Los Angeles 46, California.

(265a) Catalogue sheets and brochures available on a leading line of fine furniture featuring designs by MacDougall and Stewart, Paul Tuttle, Henry Webber, George Simon, George Kasparian. Experienced contract department at Kasparians, 7772 Santa Monica Blvd., Los Angeles 46, California. For further information write on your letterhead to above address. Showrooms: Carroll Sagar & Associates, 8833 Beverly Blvd., Los Angeles 48; Bacon and Perry, 170 Decorative Center, Dallas, Texas; Scan, Inc., 326 South Lake, Pasadena, Calif.; Casa Goldtree Liebes & Cia., San Salvador, El Salvador, C. A.

FEBRUARY 1957

(323) Furniture, Custom and Standard: Information one of best known lines contemporary metal (indoor-out-door) and wood (upholstered) furniture; designed by Hendrik Van Keppel, and Taylor Green—Van Keppel Green, Inc., 9501 Santa Monica Boulevard, Beverly Hills, Calif.

(285a) Wholesale Furniture: Execu tive office furnishings, desks, tables, chairs. Custom and contemporary styling for all institutional, commercial and residential furniture. Special and upholstered pieces. Special design and upholstered pieces. Special design service. All materials, brass, wood and metals. Visit our showrooms: Monte-verde-Young Co. (formerly Leathercraft Furniture Mfg. Co.), Los Angeles, 970 North La Cienega Blvd., or factory showrooms, 3045 East 11th Street, Los Angeles 23. In San Francisco: Fred T. Durkee, Jackson Square.

### HARDWARE

(215a) Reflector Hardware Corp. announces new 55-S SPACEMASTER Catalog. Contains 128 pages, over 650 illustrations of most advanced merchandising equipment on market. Includes: Wall Sections, Counter Set-ups, Island Units, Signing Equipment, Shelving, Splicing and Binning Equipment. Most complete merchandising equipment catalog printed. Available from the Re-flector Hardware Corporation, Western Ave. at 22nd Place, Chicago 8, Illinois or 225 West 34th St., N. Y. 1, N. Y.

(204a) Contemporary Locksets: Illustrated catalog on Kwikset "600" Lock-sets, 6 pin tumbler locksets for every door throughout the home; suitable for contemporary offices, commercial buildings. Features: 5-precision-matched parts for easy installation; dual locking exterior locksets-simplified cylinder reversing-may be reversed for left or right-handed doors. Stamped from heavy gauge steel, brass. Available in variety of finishes. For free catalog, write to Wm. T. Thomas, Dept. AA, Kwikset Sales and Service Company, Anaheim, California.

### HEATING, AIR CONDITIONING

(55) Water Heaters, Electric: Brochure, data electric water heaters; good de-sign.—Bauer Manufacturing Company, 3121 W. El Segundo Boulevard, Hawthorne, California.

(143a) Combination Ceiling Heater. Light: Comprehensively illustrated in formation, data on specifications new NuTone Heat-a-lite combination heater. light; remarkably good design, engineering; prismatic lens over standard 100-watt bulb casts diffused lighting over entire room; heater forces warmed air gently downward from Chromalox heating element; utilizes all heat from bulb, fan motor, heating element; uses line voltage; no transformer or relays required; automatic thermostatic controls optional; ideal for bathrooms, children's rooms, bedrooms, recreation rooms; UL-listed; this product definite ly worth close appraisal; Nutone, Inc., Madison & Red Bank Rds., Cincinnati 27. Ohio.

(272a) Radiant Heating Systems and Service: A complete service in the field of Heating and Air Conditioning, Rusherheat, Inc. engineers, fabricates and installs radiant heating systems for residences, terraces, pools, commercial and industrial applications. This company is in a position to be neutral in the usual controversy of radiant heating and air conditioning versus warm air heating and air conditioning since it specializes La Brea Ave., Inglewood, California. | Phone: ORegon 8-4355.

(268a) Electric Radiant Heating Panels: Provide constant heat with nearly perfect BTU radiation. Invisible installation in ceilings. Operated manually or automatically by thermostat. Separate control for each room if desired. Assures constant normal room humidity with complete efficiency. Lower installation costs. For information write to F. Scott Crowhurst Co., 847 No. La Cienega Blvd., Los Angeles 64, Calif.

### LIGHTING EQUIPMENT

(277a) Lighting Fixtures: Complete information on contemporary lighting fixtures by Chiarello-Frantz. Feature is "Light Puff" design: pleated, washable, Fiberglas-in-plastic shades with anodized aluminum fittings. Accessories include wall brackets, floor and table standards, and multiple canopy fixtures for clusters of lights. Write to: Dam-ron-Kaufmann Inc., 440-A Jackson Square, San Francisco 11, California.

(119a) Recessed and Accent Lighting Fixtures: Specification data and engineering drawings Prescolite Fixtures; complete range contemporary designs for residential, commercial applications; exclusive Re-lamp-a-lite hinge; 30 seconds to fasten trim, install glass or relamp; exceptional builder and owner acceptance, well worth considering.— Prescolite Mfg. Corp., 2229 4th Street, Berkeley 10, California.

(965) Contemporary Fixtures: Catalog, data good line contemporary fixtures, including complete selection re-cessed surface mounted lense, down lights incorporating Corning wide angle Pyrex lenses; recessed, semi-recessed surface-mounted units utilizing reflector lamps: modern chandeliers for widely diffused, even illumination: selected units merit specified for CSHouse 1950 Stamford Lighting, 431 W. Broadway, New York 12, N. Y.

(231a) Aluminum Honeycomb Light ing: Complete information now available on this new approach to full ceiling lighting-Honeylite. Made from high purity aluminum foil by special "Hexcel" process. Honeylite is now available in various cell sizes. Information describes acoustical value, excellent light transmission efficiency. Its adaptability to any lighting fixture now using glass plastic or louvers is noted and its fireproof and concealing qualities listed. For complete illustrated information, write to M. J. Connelly, Hexcel Products, Inc., Dept. AA, 951 61st Street, Oakland 8, California.

(782) Sunbeam fluorescent and incandescent "Visionaire" lighting fixtures for all types of commercial areas such as offices, stores, markets, schools, public buildings and various industrial and specialized installations. A guide to better lighting, Sunbeam's catalog shows a complete line of engineered fixtures including recessed and surface mounted, "large area" light sources with various, modern diffusing mediums. The catalog is divided into basic sections for easy reference. — Sunbeam Lighting Company, 777 East 14th Place, Los Angeles 21, California.

(293a) Custom Lighting Fixtures and Architectural Interior Metal Work: Manufacturers of custom lighting fixtures for banks, churches, residential, and offices. Also complete interior fixtures, desks, check and writing stands, room and office separators decorative interior murals in metal and plastic. Specializing in all metals: brass, copper, aluminum, iron, and newly developed original decorative plastics. Consultarecommendation. Send for information and sample decorative plastic kit. Strickley & Company, 711 South Grand View Street, Los Angeles 57, California.

(288a) Lighting Fixture: The new double arm, precision positioned, adjustable Luxo lamp is ideal for decorators' studios, plants, hospitals, as well as the home. Moving arms permit easy change of position. Lamp can pivot in a circle 90" in diameter. The shade rein diameter. The shade remains stabile while the arms are in motion, yet may be raised, lowered or tilted at any angle. A variety of mounting brackets are available for wall, desk or sloping surfaces. Obtainable in various sizes and colors, Incandescent and Fluorescent. For catalogues of specifications and prices write Luxo Lamp Corporation, Dept. AA, 464 Bryant Street, San Francisco 7, Calif.

(375) Lighting Fixtures: Brochures, bulletins Prylites, complete line recessed lighting fixtures, including specialties; multi-colored dining room lights, auto-matic closet lights; adjustable spots; full technical data, charts, prices.

Pryne & Company, Inc., 140 North
Towne Avenue, Pomona, Calif.

### MISCELLANEOUS

(286a) Built-In Vacuum Cleaning System: Highly efficient built-in central cleaning system for residences, institutions, and light commercial. System features inlets in each room on wall or floor to allow easy reach with the hose and its attachments. From the inlets, tubing leads to the power unit which can be placed on service porch, garage or any spot handy for infrequent emptying of the large dust receptacle System is dustless, quiet, convenient and practical for all rooms, furniture, fabrics, rugs, home workshops, cars and car-ports. Vacuums wet or dry surfaces. Write for information and brochure; Central Vacuum Corporation, 3667 West 6th St., Los Angeles 5, Calif. Phone DUnkirk 7-8131.

### PAINTS. SURFACE TREATMENT

(160a) Mosaic Clay Tile for walls and floors—indoors and out. The Mosaic Line includes new "Formfree" Patterns and Decorated Wall Tile for unique random pattern development; colorful Quarry Tile in plain and five "non-slip" abrasive surfaces; and handcrafted Faience Tile. The Mosaic Tile Com-pany, 829 North Highland, Hollywood 38. HOllywood 4-8238.

(283a) Ceramic Tile: Write for information on new Pomona Tile line. Available in 42 decorator colors, four different surfaces, 26 different sizes and shapes. Ideal for kitchen and bathroom installations. Pomona Tile is practical; lifelong durability, resists acids, scratches and abrasions, easy to keep clean. No wax or polish necessary, exclusive "Space-Rite feature assures even spacing. Top quality at competitive prices. Pomona Tile Manufacturing Company, 629 N. La Brea Avenue, Los Angeles 36. Calif.

(213a) Gelvatex Coatings: "First of the vinyl emulsion paints" — These paints have proved their outstanding durability in England, Africa, Canada, France, Australia, New Zealand. Available for all surfaces in wide range of colors. Advantages: lasts up to 7 years or longer; may be applied on either damp or dry surface; dries in 30 minutes; flows on in 25% less time; not affected by gasoline, kerosene, lubricating oils or greases; highly resistant to acids, gases, sun, salt air, smog. Gelvatex film lets surface breathe, will not trap and air conditioning since it specializes original decorative plastics. Consulta-in both fields. Rusherheat, Inc., 920 No. original decorative plastics. Consulta-tion service for design and material For informative literature write to Larry

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For BULLETIN, write to Dean of Summer Session, University of Southern California, Los Angeles 7.

Blodgett, Dept. AA, Gelvatex Coatings Corp., 901 E. Vermont, Anaheim, Calif.

(219a) Permalite-Alexite Concrete Aggregate: Information on extremely lightweight insulating concrete for floor slabs and floor fills. For your copy, write to Permalite Perlite Div., Dept. AA Great Lakes Carbon Corporation, 612 So. Flower Street, Los Angeles 17, Calif.

(228a) Mosaic Western Color Catalog -In colors created especially for Western building needs, all of the clay tile manufactured by The Mosaic Tile Company is conveniently presented in this new 81page catalog. Included in their various colors are glazed wall tile, ce-eamic, Velvetex and Granitex mosaics, Everglaze tile and Carlyle quarry tile. Completing the catalog is data on shapes, sizes and trim, and illustrations of a popular group of Mosaic All-Tile Accessories for kitchens and baths. For your copy of this helpful catalog, write The Mosaic Tile Company, Dept. AA, 829 North Highland Avenue Los Angeles California Avenue, Los Angeles, California.

(196a) Panel Tile: New Polystyrene wall tile in 9-inch squares, textured, striated front surface, "sure-grip" diamond back. Eleven popular colors are built in, cannot fade, chip, peel off or discolor. Washable, scratch and mar proof, withstands heat, will not rust, rot, warp or swell. Well suited for residence, business, industrial and institutional installations. Can be installed over any firm, smooth, sealed wall, such as plywood, sheetrock, plaster board or plastered walls. Further information will be supplied by New Plastic Corp., 1025 N. Sycamore, Los Angeles 38, Calif.

(227a) Mikro-Sized Tile-Newly perfected, precision ground tile described as most important development in 20 years of tile making. Reduces setting time, insures perfect alignment of joints, even on adjacent walls and integral corners. Spacing lugs on two edges only—twice the size of regular lugs—providing standard 3/64 inch joints. Time saved by elimination of shimming, sanding, juggling as tiles are uniform in size. For detailed information, write to Mr. Allan Paul, Adv. Mgr., Gladding, McBean Company, Dept. AA, 2901 Los Feliz Blvd., Los Angeles, Calif.

(197a) "This is Mosaic Tile": 16-page catalog describing many types clay tile. Outstanding because of completeness of Outstanding because of completeness of product information, organization of material, convenience of reference, quality of art and design. Copies of award-winning Tile Catalog presented by The Mosaic Tile Company, Zanesville, Ohio.

### ROOFING

(146a) Fiberglas (T.M.Reg. U.S. Pat. Off.) Building insulations-Application data, specifications for insulating walls, top floor ceilings, floors over unheated space. Compression-packed, long continuous rolls, self-contained vapor barrier. Goes up quickly, less cutting and fitting. High thermal efficiency. Nonsettling, durable, made of ageless glass fibers. Owens-Corning Fiberglas Corp.. Toledo 1, Ohio.

✓ (223a) Built-up Roofs—Newest brochure of Owens-Corning Fiberglas Corpoutlining and illustrating advantages of a Fiberglas-reinforced built-up roof. A built-up roof of Fiberglas is a monolithic layer of water-proofing asphalt, reinforced in all directions with strong fibers of glass. The porous sheet of glass fibers allows asphalt to flow freely, assures long life, low maintenance and resists cracking and "alligatoring." The easy application is explained and illustrated in detail with other roofing products illustrated. Owens-Corning Fiberglas Corp., Pacific Coast Division, Dept. AA, Santa Clara, Calif.

### SASH, DOORS AND WINDOWS

(290a) Indoor Movable Shutters—Illustrated brochure shows many features and installations of Paul Heinley Indoor Movable Shutters—with details on newest shutter treatment, Shoji Shutters. Specifications include construction details, methods for installing and information for ordering or requesting bids. Paul Heinley, 2225 Michigan Ave., Santa Monica, California.

(284a) Solar Control Jalousies: Adjustable louvers eliminate direct sunlight and skyglare at windows and skylights; some completely darken for audio-visual. Choice of controls: manual, switch-activated electric, completely automatic. In most air-conditioned institutional, commercial and industrial buildings, Lemlar Solar Control Jalousies are actually cost-free. Service includes design counsel and engineering. Write for specifics, Lemlar Corp., P. O. Box 352, Gardena, California; telephone FAculty 1-1461.

(356) Doors, Combination Screen-Sash; Brochure Hollywood Junior combination screen metal sash doors; provides ventilating screen door, sash door; permanent outside door all in one.—West Coast Screen Company, 1127 East Sixty third Street, Los Angeles, California (in 11 western states only.)

(202A) Profusely illustrated with contemporary installation photos, the new 12 page catalog-brochure issued by Steelbilt, Inc., pioneer producer of steel frames for sliding glass doorwalls and windows, is now available. The brochure includes isometric renderings of construction details on both Top Roller-Hung and Bottom Roller types; 3" scale installation details; details of various

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exclusive Steelbilt engineering features; basic models; stock models and sizes for both sliding glass doorwalls and horizontal sliding windows. This brochure, handsomely designed, is available by writing to Steelbilt, Inc., Gardena, Cal.

(109h) Twindow, the Window with the Built-In Insulation: New brochure containing dimensions, specifications, installation information for double-glazed insulating units. Year-round feature reducing heat loss and heat gain during and condensation protection chart. Offered by Glass Advertising Dept., Pittsburgh Plate Glass Company, Pittsburgh 22, Pennsylvania.

(229a) Multi-Width Stock Doors: Innovation in sliding glass door industry is development of limitless number of door widths and types from only nine Units. 3-color folder now available illustrates with cutouts nearly every width opening that can be specified without necessity of custom sizes. Maximum flexibility in planning is allowed by simple on-the-job joining of stock units forming water-tight joint with snap-on cover-plate. Folder lists standheight of stock doors combined with several examples of width. Combination of Basic Units makes possible home and commercial installations in nearly every price category. For more information, write to Arcadia Metal Products, Dept. AA, 324 North Second Avenue, Arcadia, California.

(252a) Stained Glass Windows: 1" to 2" thick chipped colored glass embedded in cement reinforced with steel bars. A new conception of glass colored in the mass displays decomposing and refracting lights. Design from the pure abstract to figurative modern in the tradition of 12th century stained glass. For brochure write to Roger Darricarrere, Dept. AA, 8030 W. 3rd St., Los Angeles, Calif.

(236a) Arislide Aluminum Sliding Windows: Reduce installation costs, eliminate frames with new nail-in anchor fins. The windows may be nailed directly into studs. All sides are weatherstripped. Nylon bottom rollers insure smooth operation. Unique sliding unit is removable. Write for brochure c/o Michel & Pfeffer Iron Works, Inc., Dept. AA, 212 Shaw Road, So. San Francisco, Calif.

(209a) "Arislide Steel Sliding Doors": Illustrated 8-page catalog gives detailed specifications on sliding doors for all residential, commercial constructions. Frames, sliding units of formed steel, corners continuously welded, exposed surfaces ground. Stainless steel capped

MANUFACTURERS' LITERATURE

track, fully weatherstripped, roller bearing rollers adjustable without removing door from frame. Bronze handles, foot bolt; lever latch hardware, cylinder locks also available. Various sizes; special types. For free copy, write N. K. Juvet, Dept. AA, Steel Windows Division, Michel & Pfeffer Iron Works, Inc., 212 Shaw Rd., So. San Francisco, Calif.

(284a) Sun-Controlled Jalousies: Manufacturers of jalousies with adjustable or fixed louvres. Choice of controls—manual, motor driven with manual control, or completely automatic. Special painted or Alumilite finishes. Institutional, commercial and industrial applications. Service includes design counsel and engineering. In most air-conditioned buildings Lemlar jalousies are actually cost-free. Write for complete information, Lemlar, P.O. Box 352, Gardena, California. Phone: FAculty 1-1461.

### SOUND CONDITIONING

(263a) Acoustical Systems: Non-exposed accessible suspension system for acoustical tile. Flexible, easily installed, low-cost maintenance. Brochure contains specifications, drawings may be obtained from Accesso Systems, Inc., 4615—8th Avenue N.W. Seattle 7, Washington.

(289a) Sound systems—HI-FI and Inter-communication. All types of sound systems for residential, office, industrial, churches, schools, etc. Complete design and installation service. Complete stock of quality component parts. Visit our showrooms. Free consultation service. Write for information, etc. CALIFORNIA SOUND PRODUCTS, INC. 7264 Melrose Avenue, Hollywood 46, Calif. Phone: WEbster 1-1557.

### **SPECIALTIES**

✓ (249a) Fireplace tools and grates: Profusely illustrated brochure showing firetools, stands and wall brackets, andirons (cast iron), grates and standing ashtrays. Merit specified for Case Study House No. 17. Write to Stewart-Winthrop, Dept. AA, 7570 Woodman Ave., Van Nuys, Calif.

✓ (152) Door Chimes: Color folder Nu-Tone door chimes; wide range styles, including clock chimes; merit specified CSHouse 1952.—NuTone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio.

(183a) New Recessed Chime, the K-15, completely protected against dirt and grease by simply designed grille. Ideal for multiple installation, provides a uniformly mild tone throughout house, eliminating a single chime too loud in one room. The unusual double resonator system results in a great improvement in tone. The seven-inch square grille is adaptable to installations in ceiling, wall and baseboards of any room.—NuTone, lnc., Madison and Red Bank Roads, Cincinnati 27, Ohio.

### STRUCTURAL MATERIALS

(218a) Permalite-Alexite Plaster Ag-Latest information on this gregate: highly efficient fireproofing plaster pre-sented in detail in completely illus-Brochure contains trated brochure. enough data and authority on authentic fire resistance to warrant complete, immediate acceptance of Permalite-Alexite for perlite plaster fireproofing. Many charts and detailed drawings give fire ratings, descriptions and authorities and describe plaster as lightweight, economical and crack-resistant, withstanding up to 42% greater strain than comparable sanded plasters. Write to Permalite, Perlite Div., Dept. AA, Great Lakes Carbon Corp., 612 So. Flower St., Los Angeles 17, California.

(179a) Filon-fiberglas and nylon reinforced sheet: Folder illustrating uses of corrugated or flat Filon sheets in industry, interior and outdoor home design and interior office design. Technical data on Filon together with illustrated breakdown of standard types and stock sizes; chart of strength data and static load. Additional information on Filon accessories for easy installation.—Filon Plastics Corporation, 2051 E. Maple Avenue, El Segundo, California.

complete brochure with illustrations and specifications on distinctive line of concrete masonry products. These in clude: Flagcrete-a solid concrete veneer stone with an irregular lip and small projections on one face-reverse face smooth; Romancrete-solid crete veneer resembling Roman brick but more pebbled surface on the exposed face; Slumpstone Veneer-fourinch wide concrete veneer stone, softly irregular surface of uneven, rounded projections;—all well suited for interior or exterior architectural veneer on buildings, houses, fire places, effectively used in contemporary design. Many other products and variations now offered. These products may be ordered in many interesting new colors. Brochure available by writing to Department AA, General Concrete Products, 15025 Oxnard Street, Van Nuys, California.

(208a) Texture One-Eleven Exterior Fir Plywood: This new grooved panel material of industry quality, is in perfect harmony with trend toward using natural wood textures. Packaged in two lengths and widths; has shiplap edges; applied quickly, easily; immune to water, weather, heat, cold. Uses include: vertical siding for homes; screening walls for garden areas; spandrels on small apt., commercial buildings; inexpensive store front remodeling; interior walls, ceilings, counters. For detailed information write Dept. AA, Douglas Fir Plywood Association, Tacoma 2, Washington.

(243a) Send for new four-page basic catalog covering fir plywood grades and application data in condensed tabular form has been released by Douglas Fir Plywood Association. The folder, based on revisions stiffening grade and quality requirements as outlined in the new U.S. Commercial Standard for fir plywood (CS45-55), is designed as a quick easy-to-read reference piece for builders, architects, specifiers and other ply-wood users. The catalog covers such essential data as type-use recommendations, standard stock sizes of Exterior and Interior types, recommendations on plywood siding and paneling, engineering data for plywood sheathing and plywood for concrete forms, minimum FHA requirements, fundamentals of finishing, and applications for specialty products. Sample copies are obtainable free from Douglas Fir Plywood Association, Tacoma 2, Wash.

(291a) Decorative Natural Stone: For residential and commercial application. Quarried in Palos Verdes Peninsula of Southern California. Palos Verdes Stone offers wide range of natural stone in most popular types, distinctive character, simple beauty with great richness. Soft color tones blend harmoniously with decorative effects on all beauty and appeal. For interior and types construction to create spacious exterior use. Send for complete color brochure and information. Palos Verdes Stone Dept. Great Lakes Carbon Corporation, 612 South Flower Street, Los Angeles 17, Calif.

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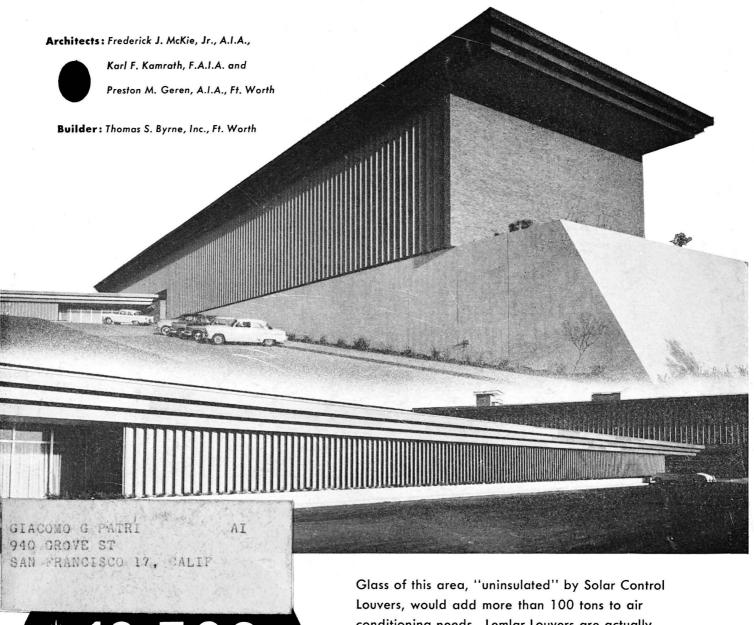
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